P.O. Box 85518
Lincoln, NE 68501-5518

CHANGE SERVICE REQUESTED

September 28, 2007
Volume 29 Number 39
www.processor.com

PROCESSOR
Products, News & Information Data Centers Can Trust. Since 1979

Unauthorized USB Devices

Are They A Threat To Your SME?

by Elizabeth Millard

• • •

USB DEVICES ARE NOT only being purchased by more people, but they're also given away as marketing items—bowls of the small storage gadgets seem to be at every technology conference—and employees often think nothing of plugging them right into the network as a handy way to transfer files.

Beyond the small, often thumb-sized drives are other devices as well, including portable storage drives and even iPods (www.apple.com), which can go from one computer to another easily, potentially putting an unprotected network at risk for infection.

In May, security firm Sophos (www.sophos.com) issued a warning that a family of worms was spreading by copying itself onto removable drives and then replicating when it was connected to the next computer. The worms specifically hunted for drives such as USB devices and created hidden files that informed the user they'd been hacked when they tried to use the devices again.

"The sheer flexibility of USBs as a read/write medium has made them very popular," says Nick Cavalancia of ScriptLogic (www.scriptlogic.com), a maker of network administration software for Windows-based networks. "IT managers at some companies have found the threat so dangerous that they simply lock out all their USB ports, even if that means spending more time on support to unlock the ports as needed."

Device Spread

Although the keychain-sized drives have gained in popularity, there are many devices that can potentially infect a network or be used to take confidential company information off a server, Cavalancia notes.

Because the iPod is essentially a hard drive, as well as a music and video player, its use has given rise to "pod-slurping," he says, in which an employee or contractor acts as if he's using iTunes but is surreptitiously transferring files and documents.

Smartphones and PDAs, too, have this capability, and an employee that plugs in a device to sync up to a calendar or other application could be shuttling more than authorized info across the wires. Portable hard drives are particularly dangerous, Cavalancia adds, because of their capacity.

"Drives can copy more than ever, and because of the network speed, they can do it faster," he says. "They can

Go to Page 10

Know Your Backup Was Successful

Backup Verification Options For SMEs

by Don Reisinger

• • •

HAVE YOU EVER PERFORMED a backup and walked away thinking it went smoothly, only to find out months later that something was corrupted and the critical backup was spoiled? If so, you're not alone. And while many IT managers suffer from this each day, there are solutions to ease that worry and help better secure an enterprise.

As most data center managers are aware, verifying a backup is one of the most important steps in making sure a backup was successful. And while some do perform a verification procedure, most don't for the simple reason that it takes too much time. Understanding that, companies such as StorageCraft (www.storagecraft.com), EVault (www.evault.com), and Arsenal Digital (www.arsenaldigital.com) have provided unique solutions for verifying backups and saving a data center manager's time, as well. In essence, the following services provide a "win-win" for everyone involved.

While some data center managers do perform a verification procedure, most don't for the simple reason that it takes too much time.

Programs For Peace Of Mind

Realizing that most data center managers simply do not want to waste time using more than one software solution to back up important data as well as verify it, some companies have released programs that do both. For example, StorageCraft offers a product called ShadowProtect that allows data center managers to schedule systematic backups and take cursory glances at

Go to Page 10

In This ISSUE

COVER FOCUS

Top Network Threats

We provide practical tips and advice for dealing with some of the most common threats to your enterprise network.

Unauthorized USB Devices.....1
Getting Tough With P2P 9
Keeping Software Up To Date.....11
Antivirus & Security Issues 12

TECH & TRENDS

Verifying Your Backups | 1

Verifying a backup is one of the most important steps in making sure a backup was successful. And while some enterprises perform a verification procedure, most don't for the simple reason that it takes too much time.

IT Service Providers | 28

Small and medium-sized businesses are challenged to provide business-critical functionality with limited staffs and budgets. For a growing number of smaller enterprises the answer is to turn to outside service providers for IT support.

Network Monitoring | 29

What criteria should data center managers keep in mind for choosing the best network monitoring solution for their business?

Going Green | 30

For IT managers in small to midsized enterprises, the concept of a green data center is partly environmental, partly financial.

Product Releases | 15

■ The latest version of **3PAR's** System Reporter supports tiered-storage metering. ■ **Acronis** released True Image Echo, which backs up and restores information on virtual as well as physical networks. ■ **AVTECH Software** gave its Room Alert line of IT and facilities environment monitoring products a technology boost with new Heat Index functionality. ■ **Chatsworth Products** has a new line of cost-effective cable-management products aimed at protecting and supporting such cabling technologies as Cat 6a and fiber. ■ **Dynamic Network Factory** released three SASmaster SAS-to-SAS and SATA-to-SAS RAID array models. ■ **EMC** unveiled the EMC Smarts IPv6 Availability Manager, network management software that supports native IPv6 deployments. ■ **Enterasys Networks** announced NetSight 3.0, a management software suite for heterogeneous enterprise networks. ■ **Panduit** announced NET-MANAGER High Capacity Horizontal Cable Managers. ■ **SECUDE** announced SECUDE secure notebook 8.0.2, which provides full disk encryption and preboot authentication.

EACH WEEK

Upcoming IT Events 4
MarketPlace News 4
Six Quick Tips.....5
Product Releases 15
Opinions 25
Product Of The Week ..26
Products At Work 27
What's Happening.....31
Three Questions 31

The Processor.com home page is updated each week with new articles and hardware news to help you keep current.
Visit www.processor.com today.

Subscribe Today / Address Change Form

For address change, fill out form below with new information and mail or fax.

PLEASE PRINT

Phone: (_____)_____ Fax: (_____) _____

Contact Name: _____

Company Name: _____

Address: _____

City: _____ State: _____ Postal Code: _____

Country:_____

Email: _____ Web Address: _____

1. What is the size of your company (how many employees)?

☐ Less than 10 ☐ 200 to 499
☐ 10 to 99 ☐ 500 to 999
☐ 100 to 199 ☐ 1,000+

2. How often do you purchase computer hardware/software?

☐ Weekly ☐ Quarterly
☐ Bi-weekly ☐ Annually
☐ Monthly ☐ No Involvement

3. What is your annual computer hardware/ software purchasing budget?

☐ $0 to $9,999 ☐ $100,000 to $249,999
☐ $10,000 to $24,999 ☐ $250,000 to $499,999
☐ $25,000 to $49,999 ☐ $500,000 to $999,000
☐ $50,000 to $99,999 ☐ $1,000,000+

PROCESSOR

© Copyright 2007 Sandhills Publishing Company.
All rights reserved.

Subscriptions: (800) 819-9014
Subscriptions Local: (402) 479-2132
Subscriptions Fax: (402) 479-2193
Mail Form To:
P.O. Box 85518, Lincoln, NE 68501-5518
Overnight Delivery:
120 West Harvest Drive, Lincoln, NE 68521

www.Processor.com

Advertisers Index

COMPANY	PAGE
360 TECHNOLOGIES	25
A10 NETWORKS	13
ADAPTEC INC	21
ASA COMPUTERS	6
ATLAS SALES AND RENTALS	22
AVTECH SOFTWARE INC	22
BARRACUDA NETWORKS	23
BAYTECH	22
BROADRACK TECHNOLOGY	23
COMPUREX SYSTEMS	29
COMPUSOURCETECH	18
COMPUTER CONNECTION	15
CYBER SWITCHING	22
DATA AIRE INC	16
DATA CENTER RESOURCES	8
DATA NETWORKS INTERNATIONAL	29
DATA RELIANCE CORPORATION	26
DATAMEDIA SOURCE	30
DIGITAL BROTHERS GROUP	24
DISKEEPER CORPORATION	17
DISKEEPER CORPORATION	21
DMD SYSTEMS RECOVERY	12
DRIVE SOLUTIONS INC	30
DYNAPOWER USA	24
EASYSYNC LTD	24
ELFIQ NETWORKS	3
ELI SYSTEMS INC	26
ENHANCE TECHNOLOGY	23
EQUIPMENT MANAGEMENT INC	15
ETASIS USA INC	21
GFI SOFTWARE LTD	3
GLOBAL PRINTER SERVICES	18
HELLERMANN-TYTON	32
HERGO ERGONOMIC SUPPORT SYS	13
HERGO ERGONOMIC SUPPORT SYS	22
I T TRADING	30
I-TECH CO	22
IBM	3
INBUS ENGINEERING	29
INTERNATIONAL SYSTEMS MGT	30
ISTOR NETWORKS INC	17
MEDIA RECOVERY	28
N S A	10
NETWORK HARDWARE RESALE	28
NLE	29
NORTHWEST PERFORMANCE SOFTWARE	23
NRS INC	26
PACE / BUTLER CORP	30
PEGASUS COMPUTER MARKETING	24
PIVOT3	8
PREMIER SOLUTIONS CO	10
PULIZZI ENGINEERING INC	19
PYRAMID COMPUTERS USA	10
RACKMOUNT SOLUTIONS	22
RACKMOUNT SOLUTIONS	23
REGENT SALES INC	28
ROSE ELECTRONICS	7
RWU INTERNATIONAL COMPUTERS	24
SANS DIGITAL	23
SEASONIC	24
SERVER TECHNOLOGY	23
STOREVAULT	8
TALLY GENICOM	16
VECMAR COMPUTER SOLUTIONS	24
ZEROWAIT	15
ZIPPY USA INC	14

NETWORKING & VPN

SEPTEMBER 28, 2007

Geographic WAN Link Balancing

Elfiq Link Load Balancer Lets You Better Manage Traffic & Meet Your Budget

ELFIQ NETWORK'S Link LB (Link Load Balancer) 1500E is the next-generation model of rackmount entry-level link load balancer supporting up to eight WAN links and 150Mbps of WAN throughput. It supports hardware LAN failover and requires less than 25W of power consumption.

The LB-1500E redefines the entry-level rackmount field by providing an unmatched functionality/price/performance ratio and differentiates itself from the competition by operating at the data link network layer (Layer 2 inline/transparent operation) to

manage synchronous or asynchronous telecommunication links. Elfiq Link LB implementation is simple and does not require IP address migration or changes to firewalls or routers. This approach prevents the use of complex protocols, such as Border Gateway Protocol, to support multiple links and reduces implementation projects.

The Elfiq Link LB guarantees optimal access for your network and applications for business continuity, while optimizing your multihomed network throughput. If a link fails, the Link Load Balancer will effectively redirect network traffic toward other links based on user-defined policies.

Advanced functionalities such as Geo-Link geographic load balancing make the Link LB a key element of disaster recovery projects and ensure maximum availability to the enterprise's IP services. Traffic will continue flowing between sites when a site goes down, and geographic policies clarify what kind of traffic or IP service is allowed to use another site.

For point-to-point resiliency implementations such as VPNs or VoIP, Elfiq's Best SitePathMPTX technology monitors alternate paths and their effective bandwidth and redirects the packets through the best available path. The Link LB gathers metrics and real-time bandwidth usage; this information can be encrypted and shared between two balancers for redundant implementations.

Elfiq Link Load Balancers are built around the Elfiq Operating System, and the hardware platform is fanless and has no moving parts. In addition, it produces little heat, reducing the risk of failures.

Elfiq Link Load Balancer 1500E

Rackmount entry-level load balancer supporting up to eight links and 150Mbps of WAN throughput

(866) 633-1227

www.elfiq.com

ELFIQ NETWORKS

NETWORKING & VPN

SEPTEMBER 28, 2007

Maintain Control Over Corporate Web Usage

GFI Updates Comprehensive Monitoring Tools For ISA Server

TO HELP administrators effectively secure their networks while still providing productive business functionality, GFI Software has introduced GFI WebMonitor 4, the latest version of its GFI WebMonitor for ISA Server. The GFI offering is available in three renditions: the WebFilter Edition, the WebSecurity Edition, and the UnifiedProtection Edition suite.

WebFilter Edition includes URL filtering and Web site categorization powered by GFI's WebGrade completely human-reviewed database technology. With WebGrade, admins can restrict user access to traditionally forbidden categories. WebFilter Edition also allows for real-time Web monitoring of all sanctioned corporate Web activity, as well as bandwidth monitoring.

Featuring antivirus, antiphishing, and spyware detection capabilities, WebSecurity Edition lets admins get a handle on Internet-based file transfers initiated within their organization. Besides blocking access to phishing Web sites through the use of an auto-updatable database, the tool uses multiple virus scanning engines to scan all file downloads. Users can add the Kaspersky SuperSecure antivirus engine as an add-on, and a specific antivirus engine can be assigned to multiple file types as necessary. Specific file types can also be automatically blocked. New to Version 4 is the ability to quarantine potentially hazardous files.

Combining the feature sets the other two offer, the UnifiedProtection Edition suite offers a comprehensive solution for SMEs wanting a more complete level of granularity.

All three share common features. Suite admins can track download and upload traffic and URL hits over time, monitor and block applications that connect to their home pages to download updates, and allow exceptions (including time-based filtering) using whitelists and blacklists. Web sites can either be blocked or allowed with an appropriate warning/notification, and filtering policies can be based on user, group, or IP address.

GFI WebMonitor For ISA Server v4

Real-time HTTP and FTP monitoring, antivirus, and access control solution gets an update

Pricing is based on edition, length of subscription, and number of users; a fully functional 30-day trial is available

(919) 379-3397

www.gfi.com

GFI

SERVERS

SEPTEMBER 7, 2007

Reduce IT Complexity

IBM System i Combines OSes, Database, Security & Storage Into A Single Integrated System

THE IBM SYSTEM I FAMILY lets you integrate, extend, and grow your business applications like never before by integrating a variety of OSes. You choose and run the best mix of applications for your business and centrally manage them.

Innovative integration. Instead of supporting and maintaining multiple disparate servers, often one for each application running on Windows, you can simply integrate operations, networking, and server management of a System i, BladeCenter, and System x environment.

Centralized, graphical server management. The System i Navigator provides a GUI for managing the System i and attached BladeCenter and System x servers. Navigator for Wireless lets you view server status and start/stop servers from a Web-enabled cell phone, PDA, or Web browser.

Synchronized security. i5/OS and Windows Server user IDs and passwords can be centrally managed.

Simplified storage management. With System i, there is a single pool of virtual storage that Windows may share. Virtual disks are allocated in i5/OS to each System x or blade server, yet all physical disk capacity and drive utilization is automatically managed by the System i.

Consolidated backup. With the integrated System i environment, all data and files are centralized in virtual storage and a single process can back up i5/OS and Windows data to a high-speed System i tape device.

Flexible server deployment. System i storage virtualization provides innovative options for enhancing the reliability and recoverability of your Windows servers. If a physical server fails, you can quickly and easily switch the server's storage to a hot spare System x or blade server.

Streamlined communications. System x and BladeCenter servers can communicate over System i virtual Ethernet network connections. Network traffic travels within the System i infrastructure and less across client networks.

IBM System i Integration with BladeCenter and System x

Lets businesses operate heterogeneous environments that include Intel-compatible servers running Microsoft Windows or Linux applications in addition to core business applications on i5/OS

(877) 426-2223

www.ibm.com/systems/i/systemx

IBM

We Know You're Busy

That's Why We've Developed Articles That Won't Waste Your Time

Check *Processor* Each Week For The Information You Need To Know

- Product Releases & Overviews
- Market & Technology News
- Advice, Strategy & Tips From Experts

It's all available both in print and online at Processor.com!

Processor and Processor.com are available to anyone free of charge. Call (800) 819-9014 to subscribe to the weekly print *Processor* or go to www.processor.com to read articles and view thousands of products online.

MarketPlace NEWS

Court Decision Reached In Microsoft Antitrust Case

The Court of First Instance in Luxembourg, the European Union's second-highest court, showed support for the European Commission's decisions in the antitrust lawsuit against Microsoft when it dismissed Microsoft's appeal. Specifically, the court said the EC made the right moves in attempting to make Microsoft share its interoperability information with other companies that make server OSes, as well as ordering Microsoft to develop a version of its Windows operating system that did not include Windows Media Player. The court also ordered the software giant to foot the bill for the majority of the EC's legal costs.

Notebook Sales On The Rise

According to research firm DisplaySearch, notebook sales have seen enormous growth during the last year, with the top nine notebook companies experiencing double-digit growth during Q2. It also found that the industry as a whole grew more than 24% during the same quarter. As a result of its findings, DisplaySearch has increased its estimates from 97.5 million to 103 million notebooks shipping this year. Year over year, HP saw notebook shipments grow 77% in the second quarter, while Acer's shipments increased by 74%. The top three worldwide market share leaders in notebook shipments were HP, Dell, and Acer, with 19.5%, 14.1%, and 12.5%, respectively.

Office 2007 Selling Well

Market researcher The NPD Group says Microsoft is selling its new Office 2007 suite at about twice the rate that its previous version, Office 2003, sold in its first couple months on the market. Analysts with NPD cited a number of reasons for Office 2007's selling success, including its value pricing in letting students and home users install it on up to three computers instead of just one and the fact that Microsoft's installed base of PCs has increased dramatically in the last few years.

Microsoft Plans Changes To Vista Desktop Search

Microsoft announced changes to its Vista Desktop Search tool in an effort to appease antitrust concerns raised earlier this summer. Vista users will see changes in two primary places: the Start menu and Vista's Explorer windows. In both areas, users will find a Search Everywhere option if they have selected a third-party search engine to use in place of Vista's built-in search feature. The changes will be available in Vista Service Pack 1, which is expected to be released during the first quarter of next year.

Vista TCO Study

According to a Microsoft-commissioned study by Wipro and GCR Custom Research, the total cost of ownership for Windows Vista on mobile PCs is $605 less per year than it is for WinXP. Costs taken into consideration for the study included hardware, software, IT labor, and user costs. It found that the TCO for WinXP is $4,407 per year, while it is only $3,802 per year for Vista. Savings included an upgrade savings of $251 per year due in part to enhancements in security, desktop engineering, user labor, and hardware and software benefits.

Yahoo! Buys Zimbra

To expand its offerings and reach new customers in different markets, Yahoo! has announced plans to acquire Zimbra, a company that provides Web-hosted collaboration software to service providers, businesses, and universities. With the deal, slated to close in the fourth quarter and worth $350 million, Yahoo! will increase its competitiveness against other companies offering collaboration and communications suites, including Cisco's WebEx and Google. Once the acquisition is complete, Zimbra will become a subsidiary of Yahoo!. Zimbra's CEO, CTO, and co-founders will all stay with the company through the move.

Alcatel-Lucent Reduces Forecast

Following Alcatel purchasing Lucent last year, the merged telecom company has faced a number of challenges, especially given its placement in the communications equipment market, which is known for being very competitive. Reflecting those struggles, the firm recently announced it will revise its revenue forecast down from the previous expectations of revenue growing in the mid-single digits as the overall market grew. Now it expects to see flat revenue or only slight gains for the year. Alcatel-Lucent spoke with North American wireless customers and got the impression they would not be spending as much as the company had expected this year.

EDS Offers Employees Early Retirement

Electronic Data Systems has offered early retirement to about 12,000 employees. Employees have until Oct. 30 to accept the offer. Employees who accept the early retirement will receive a benefits credit to their EDS Retirement Plan and may be eligible to receive payment to their Benefit Restoration Plan and $10,000 from the EDS Retirement Plan. EDS plans to take a one-time charge of $70 million to $130 million to fund the early retirement. The number of employees offered early retirement equals about a quarter of EDS' U.S. employees; the company has 136,000 employees worldwide.

Enterprises Unprepared For Disaster Recovery

About 70% of data center decision makers surveyed by Forrester Research say their enterprise is either "very prepared" or "prepared" for a manmade or natural disaster. But 27% of enterprises don't maintain a failover site, and 23% do not test their disaster recovery plans. Forrester analyst Stephanie Balaouras says the survey results show problems in two primary areas: Data center professionals struggle with proving to business executives that they need to spend money on disaster recovery investments, and enterprises also fail to schedule downtime to adequately test disaster recovery plans.

EMC Faces Sexual Harassment Suit

EMC says a sexual discrimination and gender bias lawsuit filed by two former EMC employees has no legal merit. The comments regarding the case, filed in 2004, came shortly before a federal judge is scheduled to hear arguments to seek class-action status for the suit. The two women worked for EMC between 1999 and 2003 and said during that time they were denied equal pay and job advancements and were forced to work in an environment that was generally hostile and offensive to women. *The Wall Street Journal* ran an article describing the allegations the women made, to which EMC CEO Joe Tucci responded by saying the allegations "bear no resemblance to the work environment and broad opportunities that have long existed for EMC employees around the world."

Cell Phone Use Study

According to British scientists, while it can't be determined if cell phone use can cause brain cancer or pose greater risks to children compared to adults, it has been shown that cellular phones do not cause any short-term health risks. University of Nottingham Professor Lawrie Challis led the six-year, $17.9 million Mobile Telecommunications and Health Research Program. Because few participants in the studies to date have used cell phones for 10 years or longer, it is too early to know the full effects of their use, Lawrie said in a news conference. "We cannot rule out the possibility, at this stage, that cancer could appear in a few years' time," he said.

California Data Breach Law Awaiting Approval

The California State Assembly has unanimously ratified an amended version of a bill that would make retailers responsible for reimbursing banks and credit unions for data breach-related costs. The Consumer Data Protection Act now just awaits a signature from California Gov. Arnold Schwarzenegger. The amendments that were added to the bill included changing language to make retailers responsible for only notification and card replacement as opposed to costs "not limited to" notification and card replacement, as well as adding a provision that would give exemptions to retailers that could prove compliance with all security requirements. The bill is expected to change data breach laws across the country.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	Sept. 12 $	Sept. 19 $	% change from previous week
Avaya	AV	$11.45	$16.91	$17.02	▲ 0.65%
BEA Systems	BEAS	$15.80	$12.66	$13.39	▲ 5.77%
Computer Associates	CA	$23.45	$24.70	$25.60	▲ 3.64%
Cisco Systems	CSCO	$23.23	$31.78	$32.09	▲ 0.98%
Dell	DELL	$22.16	$26.76	$27.74	▲ 3.66%
Electronic Data Systems	EDS	$24.34	$21.89	$22.14	▲ 1.14%
Google	GOOG	$403.98	$522.65	$546.85	▲ 4.63%
HP	HPQ	$35.71	$48.76	$49.78	▲ 2.09%
IBM	IBM	$82	$116	$116.67	▲ 0.58%
Intel	INTC	$19.41	$25.46	$25.68	▲ 0.86%
McAfee	MFE	$23.93	$36.06	$35.09	▼ 2.69%
Microsoft	MSFT	$26.95	$28.93	$28.67	▼ 0.9%
Oracle	ORCL	$17.97	$20.54	$20.84	▲ 1.46%
Red Hat Software	RHT	$26.07	$19.05	$19.90	▲ 4.46%
Sun Microsystems	JAVA	$5.13	$5.66	$5.81	▲ 2.65%
Symantec	SYMC	$20.97	$19.84	$19.58	▼ 1.31%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

Upcoming IT Events

- OCTOBER -

Gartner Symposium/ITxpo
October 7-12
Orlando, Fla.
www.gartner.com

Business Intelligence 2.0 Conference
October 16-18
San Diego, Calif.
www.sharedinsights.com/events/conferences

ITEC Chicago
October 17-18
Schaumburg, Ill.
www.goitec.com

Technology + Learning Conference
October 17-19
Nashville, Tenn.
www.nsba.org

Interop
October 22-26
New York, N.Y.
www.interop.com/newyork

Data Center Decisions
October 23-24
Chicago, Ill.
www.datacenterdecisions.com

- NOVEMBER -

ITEC Kansas City
November 7-8
Overland Park, Kan.
www.goitec.com

ITEC Philadelphia
November 14-15
Valley Forge, Pa.
www.goitec.com

Gartner Annual Data Center Conference
November 27-30
Las Vegas, Nev.
www.gartner.com/it/page.jsp?id=502390&tab=overview

ITEC Portland
November 28-29
Portland, Ore.
www.goitec.com

- DECEMBER -

Gartner CIO Summit
December 2-4
Amelia Island, Fla.
www.gartner.com/it/page.jsp?id=503856&tab=overview

ITEC Atlanta
December 5-6
Atlanta, Ga.
www.goitec.com

ITC East
December 5-6
Harrisburg, Pa.
www.govresources.com

Advertising Sales: Susan Miller
Matthew Bolling / Marcy Kremer / Julie Lausterer
Eric Cobb / Jen Clausen / David Bartholomai
Matt Johns / Johanna Bohrer / Jon Sims

Editorial Staff: Ronald D. Kobler / Corey Russman
Sheila Allen / Joy Martin / Christopher Trumble
Calvin Clinchard / Katie Sommer / Michael Sweet
Katie Dolan / Raejean Brooks
Nate Hoppe / Linné Ourada / Vince Cogley
Ashley Kumpula / Tara Simmons / Leah Houchin
Patrick Kean / Heather Hoffart / Lindsy Mercer
Marty Sems / Kylee Dickey / Josh Gulick / Andrew
Leibman / Jennifer Johnson / Nathan Lake / Blaine
Flamig / Chris Dunker / Tessa Breneman
Seth Colaner

Art & Design: Lesa Call / Fred Schneider
Carrie Benes / Ginger Falldorf / Sonja Warner
Aaron Clark / Amber Edwards / Lori Garris
Jason Codr / Andria Cogley / Lindsay Anker
Andy Arkwright

Web Staff: Laura Curry / Kristen Miller / Jessie Danekas

Subscriptions
(800) 819-9014
(402) 479-2170

Advertising & Reprints
(800) 247-4880
(402) 479-2141
FAX: (402) 479-2193

Editorial Staff
131 W. Grand Drive • Lincoln, NE 68521
editor@processor.com
FAX: (402) 479-2104

SIX QUICK TIPS

Disaster Recovery Demands Good Planning

by Drew Robb

• • •

Backup plays a big part in any disaster recovery, or DR, plan. Done properly, the data can rapidly be recovered in the event of a disaster. And it must be supported by other factors such as the use of fault-tolerant servers, colocation facilities, and having expert help close at hand.

Here are some tips to ensure backup is accomplished correctly and that it is flanked with other important IT actions.

Back It Up Properly

Most SMEs are aware of the necessity of backing up their company data. However, it is rarely done properly. A major element that is often missing is an understanding of what needs to be backed up and where it is safe to store that data.

"Most businesses are doing some kind of backup but usually onto the same computer or a tape drive in the same building," says Attila Kozma, president of ThetaBackup.com. "If this is done on a regularly scheduled basis, it is usually only enough to protect the company from smaller system failures such as viruses, accidental deletion, or hard drive failures. But it is a risky practice to leave backup in the same building or computer."

He recommends the prioritization of data so that mission-critical data is clearly identified. This is data without which the company would not be able to restart/continue its business quickly after a catastrophe, including customer databases, financial/billing information, strategic plans, promotional items, vendor information, etc. A current copy of such information must be stored offsite.

Online backup is the simplest way to achieve this. Backups of mission-critical documents can be scheduled daily. The data is transferred over the Internet to the computers of the online backup provider automatically without any supervision.

A major element in data backup that is often missing is an understanding of what needs to be backed up and where it is safe to store that data.

Hot Spare & VPN

Kozma provides an alternative arrangement for those with a little more tech savvy. He suggests placing a dedicated backup computer in a different location (such as the house of the owner of the company). To stay cost-effective, it can be a simple desktop system with Windows XP on it and a RAID 5 controller. Configure RAID 5 to have a hot spare HDD (hard disk drive). If one of the HDDs in the RAID 5 array breaks down, the hot spare takes its role.

This can be further enhanced by creating a VPN between the office and this backup computer. Most new Internet routers have the capability to create a VPN.

"There are also software-based VPNs. My favorite is Hamachi at www.hamachi.cc," says Kosma. "Connect these computers via the VPN, map the different drives, obtain simple but reliable backup software (such as ViceVersa Pro at www.tgrmn.com), and set it up so the backup will be done."

Alternatively, Symantec (www.symantec.com) offers Backup Exec 11d for Windows Servers. It can help Windows-based businesses back up more data without demanding much hardware, time, or resources. A multitude of other backup software products exist.

Central Servers

Some organizations suffer from a bad habit. They allow users to store vital information on the hard drives of desktops. As IT typically only backs up servers, a disaster could expose significant holes when it comes time to conduct a restore or rebuild corporate systems.

"A good practice for SMBs is to dedicate central file servers where office documents are stored and enforce the staff to save everything to those computers," says Chip Nickolett, owner of Comprehensive Solutions (www.comp-soln.com), a systems integrator that works with SMEs. "One of the biggest sources of lost data is data retained on individual computers in the company and not in a central place. Centralized data storage makes backup really simple."

Fault-Tolerant Server

The term fault-tolerant is bandied around by most server vendors. It means that if a fault occurs, the server continues. Fujitsu Siemens Computers (www.fujitsu-siemens.com) has a high-availability approach that combines blades and failover capabilities known as x10sure. It is targeted at companies with 10 to 1,000 employees that have a need for high availability yet lack IT staff.

NEC (www.nec.com) offers a real fault-tolerant server that could save the day in the event of a crash. The NEC Express-5800/320Fc Fault Tolerant series server features up to two quad-core Intel Xeon 5300 Series processors.

"The Express5800 Fault Tolerant servers provide the only platform for Windows Server 2003 applications designed for continuous availability," says David Reine, an analyst at The Clipper Group. "Along with outstanding performance, the Express5800/320Fc delivers the availability and reliability that mission-critical applications demand in a cost-effective package that minimizes TCO."

In demos of this technology, the rep removes the complete memory module. The system instantly fails over to another server within the same box. (Each system consists of two separate server modules within one box.) Each module contains the exact same CPU, memory, and hard drive configuration to permit mirroring of data. They each have their own power supply to ensure continuous operation even if one module experiences a power cut. Both server modules operate in synchronization and require only one Windows Server 2003 OS license between them. Such a setup is ideally suited to remote sites that don't contain IT experts yet can't afford downtime. It also offers great value to SMEs that cannot tolerate even the slightest server failure. P

BONUS TIPS

Colocate. Chip Nickolett of Comprehensive Solutions suggests that some SMEs look at large colocation facilities, which can provide hosting services at various locations for a monthly fee that is typically around $2,000 per rack or less. National providers, such as AT&T (www.att.com) and Cogent Communications (www.cogentco.com), or regional providers, such as Qwest (www.qwest.com) and Norlight Telecommunications (www.norlight.com), might be an option for SMEs with data that requires a safer or more robust alternate site.

Back up laptops. Software is available from vendors such as CA (ca.com), Symantec, and others that makes it much easier than before to back up laptops. In the old days, laptops were only backed up (if at all) when road warriors returned to headquarters and connected to the corporate network. Current software makes it possible for mobile users to back up their files every time they connect to the Internet.

Best Tip: Perform Full Backups

❍ Many small companies try to nickel-and-dime backup tapes and in doing so could lose the company. This manifests in the practice of incremental backups—only backing up changes to data on a daily or weekly basis. However, this does not take into account that the possibility for data/tape errors or lost tapes is very high.

"I recommend full backups on a regular basis," says Comprehensive Solutions' Chip Nickolett.

That way, many complete copies of the data exist. Even if the full backup before a disaster proves faulty, another full backup is immediately at hand. Even if the data on it is more than one week old, this is usually good enough for most businesses.

Easiest To Implement: Work With Resellers

❍ While a variety of offsite storage and data protection methodologies are available, it is sometimes the case that they involve costs and complexities that are out of the reach of the typical SME. The simple solution is to get help from those who know what they are doing.

"Working with the reseller community in conjunction with the new generation of efficient and reliable online backup services is one of the most effective options for smaller companies," says Chris Schin, director of product management at Symantec (www.symantec.com).

What are PROCESSOR & PROCESSOR.COM All About?

•Straightforward, EASY-TO-READ information
•Practical ADVICE AND TIPS to help you do your job
•PRODUCT SHOWCASES from new equipment manufacturers and resellers you can trust
•The best USED AND REFURBISHED EQUIPMENT dealers
•Being FASTER AND SIMPLER TO USE than today's most popular online search tools
•Dealers that can service or supply parts for OLDER EQUIPMENT
•IN-DEPTH INFORMATION on the most products and services imaginable

Processor. It's all about products, news, and information data center professionals can trust. IT'S ALL ABOUT YOU.

ASA COMPUTERS

Want your business to be more productive?

The ASA Servers powered by the Dual Core Xeon processor provide the quality and dependability to keep up with your growing business.

Hardware Systems For The Open Source Community-since 1989

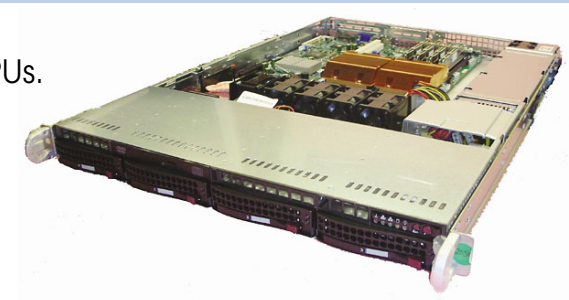
(Linux, FreeBSD, NetBSD, OpenBSD, Solaris, MS, etc.)

Product Feature

-Rack solid quality rackmount system with excellent cooling.
-Custom OS including Linux, Solaris*BSD, MS Windows, Suse, Debian, etc.
-Hardware and software RAID storage.
-High density cluster nodes.
-SATA-SCSI-SAS-Fiber Raid.
-iSCSI and NAS storage appliances.
-High end custom workstations.
-On-site warranty support for most of our products.

1U Dempsey/Woodcrest Storage server starts at-$1,841

-1TB Storage installed. Max-3TB.
-Intel Dual core 5030 CPU (Qty-1), Max-2 CPUs.
-1GB 667MGz FBDIMMs installed.
-Supports 16GB FBDIMM.
-4X250GB htswp SATA-II Drives installed.
-4 port SATA-II RAID controller.
-2X10/100/1000 LAN onboard.



2U Dempsey/Woodcrest Storage server starts at-$3,591

-3TB Storage installed. Max-9TB.
-Intel Dual core 5050 CPU (Qty-1), Max-2 CPUs.
-1GB 667MGz FBDIMMs installed.
-Supports 16GB FBDIMM.
-12X250GB htswp SATA-II Drives installed.
-12 port SATA-II RAID controller
-2X10/100/1000 LAN onboard.
-500W Red PS.

3U Dempsey/Woodcrest Storage server starts at-$4,191

-4TB Storage installed. Max-12TB.
-Intel Dual core 5050 CPU.
-1GB 667MGz FBDIMMs installed.
-Supports 16GB FBDIMM.
-16X250GB htswp SATA-II Drives installed.
-16 port SATA-II RAID controller.
-2X10/100/1000 LAN onboard.
-800W Red PS.

Custom OEM Solution

-Custom chassis design per your needs for your appliances.

-Custom logo printing.

-Facilitating in getting various certifications like FCC/UL/CE, etc.

-Custom installation of your images.

-Drop ship on your behalf.

5U Dempsey/Woodcrest Storage server starts at-$6,451

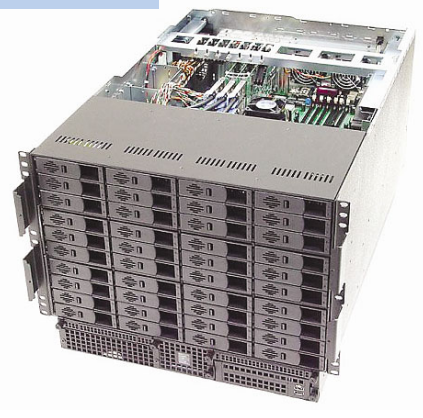
-6TB Storage installed. Max-18TB.
-Intel Dual core 5050 CPU.
-1GB 667MGz FBDIMMs installed.
-Supports 16GB FBDIMM.
-24X250GB htswap SATA-II Drives installed.
-24 port SATA-II RAID. CARD/BBU.
-2X10/100/1000 LAN onboard.
-930W Red PS.

Technical Expertise

We have a highly qualified technical and engineering team consisting of Redhat, BSD, MCSE, CCNA and CNE certified engineers. They are dedicated to address any questions you may have with our hardware products. Our sales engineers are experts in providing you solutions that suit your needs while keeping your budget low. .

8U Dempsey/Woodcrest Storage server starts at-$10,811

-10TB Storage installed. Max-30TB.
-Intel Dual core 5050 CPU.
-Quantity 42 installed.
-1GB 667MGZ FBDIMMs.
-Supports 32GB FBDIMM.
-40X250GB htswap SATA-II Drives installed.
-2X12 Port SATA-II Multilane RAID controller.
-1X16 Port SATA-II Multilane RAID controller.
-2X10/100/1000 LAN onboard.
-1300W Red PS.



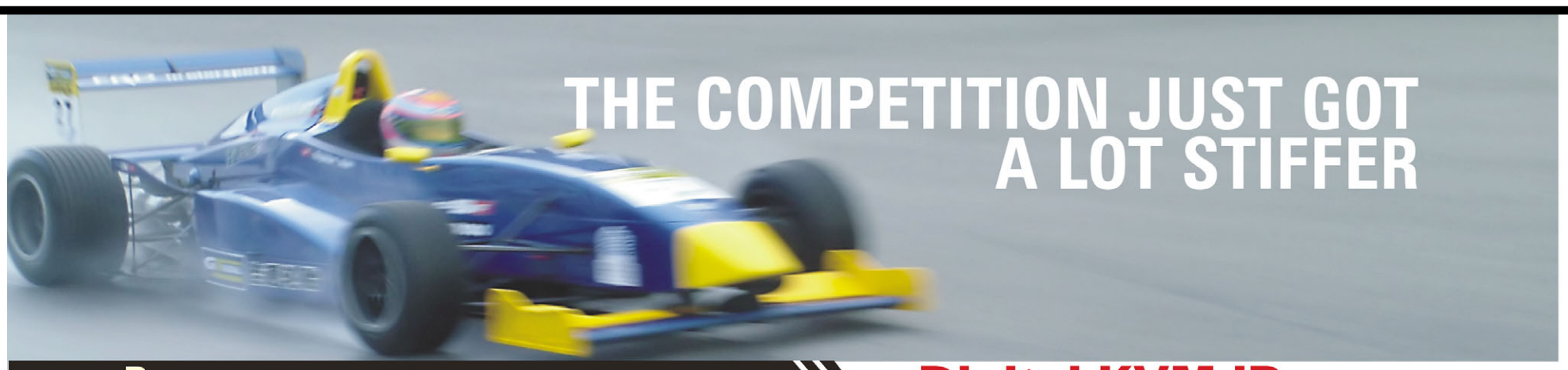
We provide approved EVAL server for 10 days.

Why Do Business With ASA?

Since 1989, ASA has served customers like Cisco, Juniper, Caltech, Fermilab and most Universities. We provide total custom solutions with OS of your choice. Excellent pre-sales and post-sales support. Reliable hardware at most competitive prices. Please call or contact us for your next hardware purchase.

1-800-REAL-PCS

intel Xeon inside™ Dual-core. Do more.



Remote Server Management — Digital KVM IP

UltraMatrix™ Remote
Connects 1,000 computers to up to 256 user stations

- Multi-user, multi-platform KVM IP switch
- Supports PC, Sun, Apple, USB, UNIX, and serial devices
- High quality video up to 1280 x 1024
- Secure encrypted operation with login and access control
- Scaling, scrolling, and auto-size features
- View 4 computer connections using the quad-screen mode

UltraConsole™ Remote
Access servers & serial devices from anywhere in the world

- PC, SUN, UNIX, Linux, USB, and serial devices
- Supports serial devices such as routers, switches, and more
- Emulates VT100/VT220 terminals
- Secure encryption operation
- Scaling, scrolling, auto-size and quad screen features
- View 4 computer connections using the quad-screen mode

UltraLink™
Manage & monitor servers from anywhere in the world

- High-quality video up to 1280 x 1024
- Secure encrypted operation
- Scaling, scrolling, and auto-size features
- Quad screen, real-time viewing of 4 computers
- Compatible with most KVM switches
- Available in single, dual, and quad models

PC, Sun, Apple, USB, UNIX, Serial Devices — KVM Switches

UltraMatrix™ X-Series
Expandable, multi-user switch for connecting 1,000 computers

- Multi-platform units have serial VT220 terminal emulation
- Advanced visual interface (AVI)
- Security features prevent unauthorized access
- Free lifetime upgrade of firmware
- Video resolution up to 1600 x 1280
- Multi-lingual Menu

UltraView™ Pro
Access or Manage 2 to 256 computers from a single KVM station

- Economical
- Easy to use, install, and expand
- Audio and serial support
- Advanced visual interface (AVI)
- Security features prevent unauthorized access
- Free lifetime upgrade of firmware

QuadraVista™
Display 4 computers on a single monitor

- View live, real-time data in each window
- Easily switch to and control each computer in Quad or Picture-in-Picture (PiP) mode
- Video resolution up to 1920 x 1200
- VGA and DVI video supported
- Supports USB and PS/2 computers
- On-screen menus for easy set-up

Fiber, CATx, DVI/VGA, PS/2 or USB — KVM Extenders

CrystalView™
Extends keyboard, video, mouse, audio and serial up to 1000 ft

- Supports USB, PS/2, or Sun
- Serial and full stereo options
- Available in single, dual, or quad video models
- Supports video resolutions up to 1600 x 1200
- Video tuning and skew adjustments available
- Dual version allows another KVM near computer

CrysrtalView™ Pro
Extends keyboard, video, mouse, audio and serial up to 33,000 ft

- Supports DVI video resolutions up to 1920 x 1200
- Supports Fiber or CATx cable
- Supports singlemode or multimode fiber cable
- Supports PS/2 or USB keyboard and mouse
- Supports for local KVM station
- Fully automatic KVM sharing

ViewLink™
Extends keyboard, video, & mouse up to 1000' over CATx

- Automatic compensation and equalization
- Automated video skew adjustments
- Models available for PS/2, USB or both
- Video resolution up to 1600 x 1200
- Compatible with KVM switches
- Operating system independent

Organize, Streamline Server Rooms — KVM Accessories

RackView™
15", 17", 19", 20" LCD flat panels Fold forward & backward designs

- Built-in single or multiple user KVM switch options
- Supports AT/XT, PS/2 and Unix computers
- DVI and S-video options available on 19" and larger LCD
- LCD flat panel and keyboard can be sold separately
- Available with full size, full function Sun keyboard
- Optional multi-media version with TV tuner & stereo speakers

RackView™ Panel Mount LCD
Mounts vertically in a standard 19" rack

- Available with a 15",17", 19", 20", or 23" LCD
- 19" and 20" models support DVI and VGA inputs
- Resolution up to 1280 x 1024
- Fits in 7 – 9 rack units (Depending on model)
- DVI and S-video options available on 19" or larger LCD
- Quick and easy rack mounting installation

VideoSplitter™ CAT5
Distribute, amplify & extend video to 6 or 12 monitors

- Video resolutions up to 1600 x 1200
- Each remote monitor can be up to 1,000'
- Optional Audio and Serial
- Easy to install
- Rack mountable chassis

ROSE US 281 933 7673
ROSE EUROPE +44 (0) 1264 850574
ROSE ASIA +65 6324 2322
ROSE AUSTRALIA +617 3388 1540

800-333-9343
WWW.ROSE.COM
Rose Electronics 10707 Stancliff Road - Houston, Texas 77099

ROSE ELECTRONICS

PHYSICAL INFRASTRUCTURE

SEPTEMBER 14, 2007

Power, Control & Monitor Your Data Center

Data Watch's Power Watch & Enviro Watch Work Together To Meet Your Needs

WHEN YOU'RE IN charge of a data center, the more help you can get monitoring systems and other data center conditions, the better. Data Watch's Power Watch and Enviro Watch products are ideal for just such situations.

The Power Watch product line (pictured) was designed to meet the growing need for rack-level power. Both horizontal and vertical models feature up to 60 amps, and dual-cord models can provide redundant power in a single PDU. With dual-cord models, each input cord provides source power to a separate circuit. For dual-corded servers, plug one cord into a receptacle in the "A" bank and one into the "B" bank and achieve redundancy in one PDU. The receptacle bank of each circuit is color coded for simple identification.

Power Watch's programmable current meter provides a local display and alarm for both amperage and voltage for individual circuits and the total. Simple push-button navigation and programming make the meter user-friendly, and RS-232 connectivity allows for remote access to meter readings and setting/receiving alarms.

Connect Power Watch remote PDUs to the Enviro Watch network appliance for desktop monitoring, email alerts, data logging, and graphing. Enviro Watch provides remote monitoring and administration to Power Watch PDUs and can monitor data center temperature and humidity.

Enviro Watch's multi-functional RJ-45 ports allow connection of Power Watch PDUs, temperature-only sensors, or temperature/humidity sensors.

Each unit ships with Enviro Watch software, which provides an intuitive interface for monitoring, administering, logging, graphing, and reporting features. Once a preassigned threshold is met, alerts can be sent via SNMP or email to different recipients based on the severity of the alert.

Data Watch
Power Watch & Enviro Watch

Power Watch PDUs provide up to 60 amps with dual-cord versions available; bundle with the Enviro Watch appliance to monitor the PDUs and data center environmental conditions

(866) 325-1121

www.data-watch.com

STORAGE

AUGUST 10, 2007

Virtual RAID Boosts Video Surveillance Storage

Pivot3 Enters The Market With An IP-based RAID Platform

START-UP PIVOT3 has entered the scalable network storage market with a "virtual distributed RAID" platform, which the company says can slash storage infrastructure costs by half while improving scalability and data availability.

The RAIGE (RAID Across Independent Gigabit Ethernet) storage cluster is the first system from Pivot3 based on a block-level virtualization architecture that eliminates

the need for traditional RAID hardware and storage controllers. Data-protected storage is supported across networked nodes, called Databanks, which are built using x86-based servers connected by Gigabit Ethernet.

"This is an alternative that not only can reduce cost up to 50% but can also provide five times or more the performance of traditional storage," says Jeffrey Bell, vice president of marketing for Pivot3.

The ability for RAIGE to simply and cost-effectively handle data-intensive application workloads has made it attractive to customers within the video surveillance space. Breaking into that market is requiring Pivot3 to work within the existing partner community, a practice the company is likely to continue to use as it targets additional markets.

"Businesses considering video surveillance are looking at cameras or video management software and are working with security integrators," Bell says. "We've been working with those types of providers to get the leverage we need in the market."

The platform is well-suited for apps requiring content aggregation, including use for medical records, oil and gas exploration, and archiving. The use of standard server platforms can allow a business to create a pay-as-you-grow model, adding drives as needed without disruption.

"Data recovery times are five to 10 times faster than other storage alternatives due to system-wide parallel processing and a Pivot3-created algorithm that optimizes the rebuild process," he says. Data is continuously made available through volume provisioning changes that support on-the-fly configuration changes.

Pivot3 RAIGE Storage Cluster

$17,499 for 6TB; $22,499 for 9TB

Storage cluster that uses block-level virtualization to reduce cost and improve performance

(877) 574-8683

www.pivot3.com/RAIGE

Wish You Could Have All Three?

Everything's already inside the StoreVault S500.

- NAS, SAN, and DAS right out of the box
- NetApp enterprise-proven technologies
- RAID DP protection against dual drive failure
- Instant back up and data recovery
- Simple on-the-fly provisioning
- Easy off-site data replication
- Starting at less than $6K

2007 Winner! Windows IT Pro Editor's Best Award

NetApp®

Check "Special Offers" For Big Savings! www.storevault.com

StoreVault™ A NetApp Division

Getting Tough With P2P

How To Stem Threats Inherent In Peer-To-Peer Applications

by Christian Perry

• • •

At their core, peer-to-peer applications can deliver the seamless ability to transfer files with little hassle or interference. Unfortunately, that same simplicity can create environments rife with threats to data and efficiency, leading enterprises to discover a middle ground between P2P's usefulness and its potential to slow traffic or even allow wide-ranging attacks.

"P2P can be a big headache for enterprises because it is insatiable," says Cam Cullen, director of product management at Allot Communications (www.allot.com). "P2P applications congest previously smooth traffic, slowing down downloads and uploads and raising operating costs. P2P applications, which are not particularly sensitive to network delays, result in a diminished performance for latency-sensitive applications such as VoIP."

These applications also carry severe security risks that some employees might be tempted to overlook when taking advantage of the technology's ability to easily transfer large files. Chris Whitener, chief security strategist for HP's Enterprise Storage & Servers unit (www.hp.com), says that P2P applications provide additional entry points into corporate networks for intrusions, data theft, DoS attacks, viruses, and worms.

"Users attracted to the simplicity of downloading files provided by the P2P network can inadvertently allow access to any corporate data—including financial records, customer information, corporate email, tax reports, and spreadsheets," Whitener says. "A disgruntled employee could also instant message company secrets to a worker for one of the company's competitors."

Trouble Within

Although developers of P2P applications have taken steps in recent years to boost the security in their programs, problems remain. Whitener explains that these applications can use port-scanning and tunneling techniques to bypass firewalls, and few of them offer robust authentication or encryption. Further, user interface flaws can result in employees inadvertently sharing private files such as email, passwords, and financial records.

Years have passed since Napster (www.napster.com) and other high-profile P2P applications continually garnered headlines, but the threat remains high enough to prompt experts to warn that the applications can even impact the survival of enterprises. "Employees put themselves and their company at grave legal risk if they use P2P networks to illicitly or unwittingly share data that can impact the company's finances or customers," Whitener says.

This becomes increasingly true as enterprises are forced to comply with regulations such as Sarbanes-Oxley and HIPAA, and smaller enterprises, in particular, could be crippled by government inquiries into the exposure of sensitive financial or customer data, Whitener says. After all, litigation by partners or customers, as well as government fines, could overwhelm an SME's legal resources and diminish shareholder trust and brand value, he says.

Beyond the security risks, P2P can also drown a network in activity and bring productivity to a virtual standstill. According to Cullen, links are never idle when it comes to P2P because P2P applications run in the background and sap as much available bandwidth as possible to transfer files.

Lock It Down

Blindly battling the threats created by the use of P2P is supremely difficult because the applications can create a wide range of holes and performance issues. Unlike malicious code, which can be thwarted by targeted software and hardware installations, P2P applications can demand the creation of specific policies that allow or disallow their use, along with increased network monitoring to catch potential P2P-related trouble.

"Enterprises need a clear policy for dealing with P2P software," says John Curran, senior vice president and CTO for ServerVault (www.servervault.com). "For some organizations, this may mean formal support for P2P software on the desktop with responsible configuration settings for access policy and network bandwidth. More frequently, the policy is adopted to prohibit P2P software on desktops."

Whitener suggests that enterprises keep a close watch over what's being shared on their networks. To help stem suspicious activity, companies can implement controls to block ports commonly associated with P2P activity, he says, and add network filtering technologies that can prevent sensitive data leaks. Other methods can help to further lock down P2P activity.

"To prevent the unauthorized use of P2P applications that are using the UDP protocol to tunnel network location to services such as VoIP, media streaming, etc., IT operators need to not permit or isolate such traffic with strict policy controls. A better approach is to enhance IT firewalls to support session border controllers to monitor and verify all multimedia traffic," Whitener says.

Clear policies can still be used to govern the use or installation of third-party software applications on company equipment, such as desktop PCs, laptops, PDAs, and mobile phones, Whitener says. Companies that choose to allow the use of P2P programs can benefit by creating a "P2P users guide" that can instruct users on crucial points, including how to avoid accidentally sharing files.

Once policies are in place, says ServerVault's Curran, they need to be followed up with education and some form of enforcement, whether through administrative lockdown of the systems, network-based intrusion detection, firewall access lists, host auditing software, or a combination of all of these elements.

Plenty of network enforcement tools are available to help curb the potential for attacks and other network problems caused by wayward P2P applications. For example, Allot's NetEnforcer provides real-time visibility into network traffic and enables prioritization of applications according to network policies. HP also offers tools that can help enterprises manage file-sharing activities and security risk management systems, such as HP ProCurve Identify Driven Manager, the HP Anti-phishing Toolbar, and the company's Compliance Log Warehouse, which can be used to monitor P2P ports and enforce policy.

Everyone's Responsible

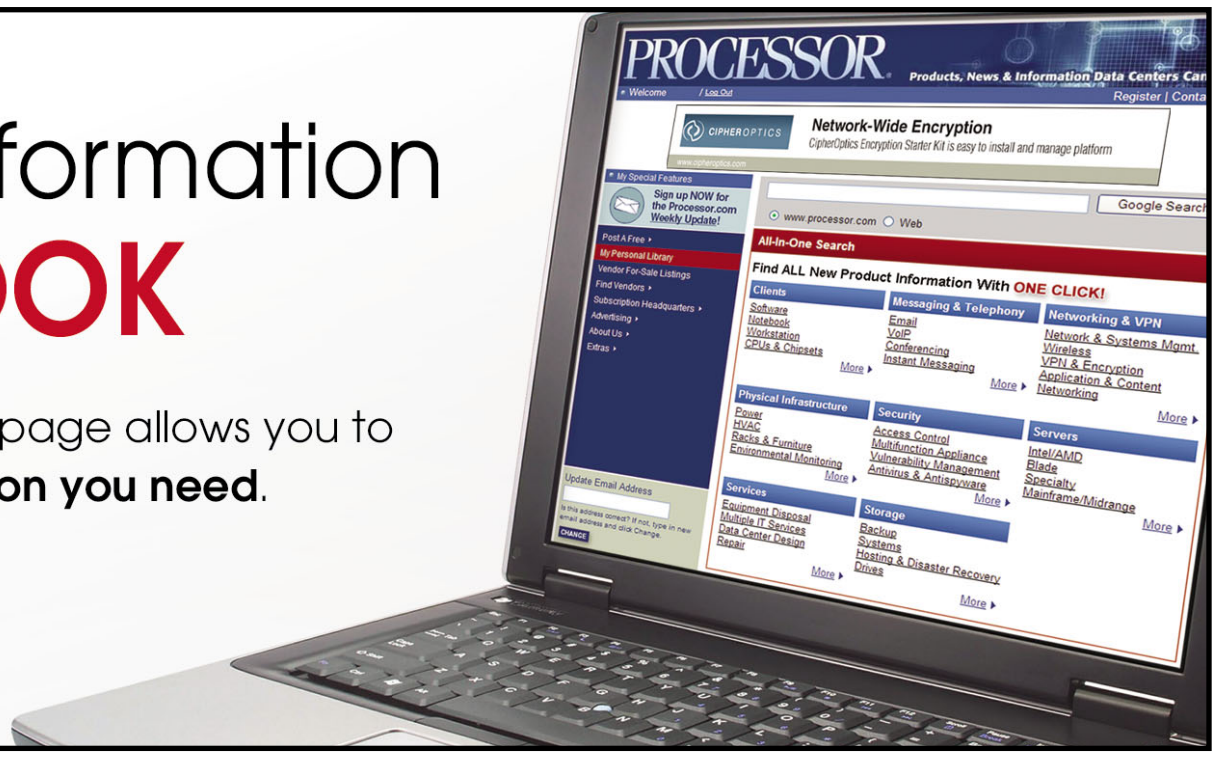
Although IT managers are generally those charged with ensuring that P2P threats don't compromise the enterprise, Whitener stresses that other employees have a responsibility to comply with company security processes and procedures to avoid threats. These processes should also be reflected at the policy level, where the CISO (chief information security officer) should work to set policy for use of P2P applications and the monitoring of their implementation by IT, he says.

P2P can drown a network in activity and bring productivity to a virtual standstill.

Tips For Combating P2P-Based Threats

- Develop and implement a security policy that explicitly states that no external storage devices can be connected to the network without first being approved and scanned.
- Dedicate a standalone system not connected to the network that can be used for scanning.
- Configure antivirus software to scan storage devices and block them if any virus-like activity is present.
- To prevent information theft, check logs regularly to track downloads.
- For high-security areas, block access to USB ports except for authorized individuals.

Same Great Information
NEW LOOK
Our new, easier-to-read home page allows you to **quickly find** the **information you need**.
PROCESSOR.COM®



Unauthorized USB Devices

Continued from Page 1

also put a virus on the network within seconds."

Striking A Balance

Some SMEs may find it easier to block USB ports altogether, but that may be a difficult strategy for those companies where there are numerous sales representatives, consultants, contractors, telecommuters, interns, or other employees who have to transfer files, and using USB devices makes the process easier.

"Definitely, you need a mix of security and productivity," Cavalancia says. "The balance comes with trying to lock down without impacting how people are doing their jobs." For example, he notes, in a law firm it's likely that attorneys and paralegals would need to upload current case law information and bring it with them to a client. Blocking access would create the need for workarounds that might be onerous and time-consuming.

One tactic is to standardize on devices and give company-authorized USBs or removable hard drives to employees with instructions on their use. The drives can contain antivirus software that will automatically start up when they're connected to an outside computer and also prevent the USB from being accessed on a company computer until it can be scanned there, as well.

"It's a little more work up front for IT, but employees will be happier, and there will be fewer incidents of going against the security policy," Cavalancia says. "You can lock out everything except one specific brand of USB."

Sophos senior technology consultant Graham Cluley advises that for the recent virus, users should disable the autorun facility of Windows so removable devices, such as USB keys and CD ROMs, do not automatically launch when attached to a PC. In general, he says, just become more aware of the fact that there's a rise in what he calls "financially motivated malware," where attackers build a backdoor into USBs so criminals can get data out without a user's knowledge.

Priority Data

Also likely to take some time initially but worth the effort in the long run is to class users according to security levels and authorize USB drives only to those who can justify their business need, says Jim Peterson, chief scientist at PKWARE (www.pkware.com), a developer of file management products.

Because devices pose an information theft threat, as well as a virus threat, protecting confidential data should be part of the USB strategy, he notes.

"First, you need to figure out what data needs to be protected, so the starting point is data classification," Peterson says. "The next point is determining how particular users need to use and manage data and apply reasonable security solutions into those processes."

In other words, not all users are created equally, and although it would be easiest to block them all from using devices, some job classifications make it difficult to employ a blanket approach. If the CEO wants to take a presentation to a conference but prefers not to take a laptop, it's likely to be preferable (and more pleasant) to equip a USB device with encryption than to simply say no.

Once data needs are determined, users can bring in the devices they regularly use, Peterson adds, and IT can scan them and load them with the necessary antivirus and encryption to make them safe for the network.

Tips For Combating Unauthorized USB Devices

- Develop and implement a security policy that explicitly states that no external storage devices can be connected to the network without first being approved and scanned.
- Dedicate a standalone system not connected to the network that can be used for scanning.
- Configure antivirus software to scan storage devices and block them if any virus-like activity is present.
- To prevent information theft, check logs regularly to track downloads.
- For high-security areas, block access to USB ports except for authorized individuals.

Know Your Backup Was Successful

Continued from Page 1

whether the backup was successful. ShadowProtect 3.0 includes a tool called "Verify Image" that makes sure a backup is working at a single point in time or if it has done so over a specified length of time.

On the other hand, companies such as EVault do not inherently believe in the viability of software solutions to verify backups. As Richard Heitmann, vice president of product management, explains, "In tape-based backup environments, users really don't know if they can recover their data. They typically find out at the least opportune moment, which is when they have lost data or a system and are trying to recover it."

To solve this issue, EVault has instituted an online backup system that gives data center managers up to 500GB of storage and verifies the backup upon completion with the help of its "disk-to-disk" comparison. Along those lines, users can also go into the online management system and verify the status of backups and "determine if they need to take any corrective action," says Heitmann.

Human error is always a possibility. Regardless of how hard managers try to save data from corruption or becoming lost, mistakes happen. But the most important trait in any good recovery system is a strong infrastructure that is capable of getting important data back as quickly as possible. Understanding this, Arsenal Digital attempts to make the entire backup process as automated and easy as possible.

As vice president of product management at Arsenal Digital, Gerald Longoria explains, "Arsenal provides a fully managed, Tier 1, on-demand data protection solution that scales with your needs. 24/7 monitoring and management, backup infrastructure, and policies ensure backups are completed, and more importantly, that data center managers can recover data when they need it."

Much like EVault, Arsenal Digital has also begun to institute a patent-pending management portal that lets data center managers monitor all backups centrally and eliminate the need to jump back and forth to make sure all backups are performing as planned.

Precautions

With these solutions in mind, many data center managers are still asking how to eliminate the threat of an unverified backup creating havoc in the workplace. Unfortunately, no plan is guaranteed, and more often than not, something may come up to derail even the most useful and robust verifying solution.

Knowing this all too well, data center managers should have a disaster recovery plan in mind before a backup starts. Brandon Nordquist, vice president of product management at StorageCraft, says, "Backups are only valuable if they work." For this reason, his company's ShadowProtect software aims to become that disaster recovery plan before a disaster occurs. With both a server and a desktop version, ShadowProtect 3.0 will analyze an image to make sure it's viable and does so in a short amount of time, so data center managers won't leave for the night expecting everything to go well.

Besides just a pure online element, EVault's disk-to-disk solution is central to eliminating the need for a disaster recovery plan. According to Heitmann, "A disk-to-disk solution can make recovery failures and vulnerabilities vanish immediately."

A disk-to-disk solution ensures that each parcel of data was successfully transmitted to the online backup system and, along with frequent testing, could mitigate any recovery issues currently plaguing an SME.

Double-Check Backups

Although it seems obvious, one of the best practices for any data center manager is to ensure all data sets are optimized. Longoria mentions an important point regarding this issue: "Many SMBs are not aware of the significant data growth they are experiencing and the impact this has on the backup window. When they come in the morning to find that the backup job did not complete, it puts them at risk of losing important data."

Longoria also says it is incumbent upon each data center manager to perform frequent data recovery tests (with the help of automated software) to ensure all data is capable of being recovered if the need should arise.

Verifying a backup can be a time-consuming process for managers who just don't have the time to spend performing it. For that reason, companies have come along to help eliminate that time crunch and let managers focus on more pressing issues. That said, all IT managers should know that no one solution will provide the complete verification solution they may want. Without a healthy offering of software and human interaction, verification can become a serious issue. But if both are used together, disaster recovery could become a far less pressing issue.

Verification Options Differ

Arsenal Digital

www.arsenaldigital.com

Arsenal Digital uses intelligent metadata engines that help automate the process and create a viable backup and verification solution. A key element of the approach is the use of centralized intelligence to increase overall system scalability and flexibility.

EVault

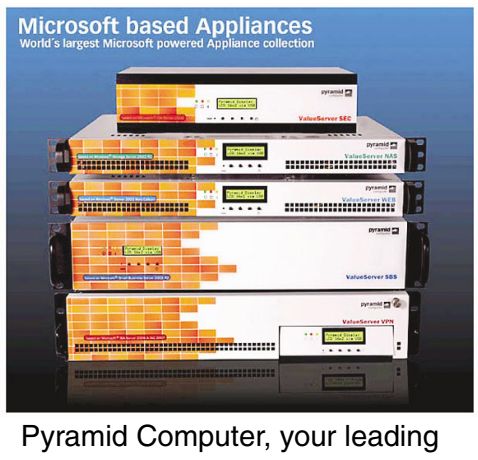
www.evault.com

EVault understands the time crunch data center managers are under and attempts to bring the backup and verification process online. To further verify a backup, the company uses a disk-to-disk method that ensures all data was successfully transmitted.

StorageCraft

www.storagecraft.com

StorageCraft focuses on software solutions that data center managers can download onto a server or desktop and monitor and administer. A program called ShadowProtect 3.0 will do most of the heavy lifting.



Pyramid Computer, your leading provider of branded appliance solutions, now offers the complete line of Microsoft security and storage product appliances featuring IAG and ISA server.

pyramid computer

Pyramid Computer USA
www.pyramid-usa.com
info@pyramid-usa.com
866-745-3553

Protect our Environment
Go Green

Got Tape? We Buy!

NSA will recycle it

we assure you that all safeguards are put in place to protect the sensitive information and that all of the data is destroyed according to all local, state and federal goverment regulations

NSA National Sales Associates

contact us and experience our outstanding customer service!

Free pick-up at your location

866.670.2345 Service@nsainc.net

"Full project planning from start to finish"

Premier Solutions Co. understands critical data operations and our 20 years of industry experience benefit our client base of over 30 data center buildouts and expansions.

Our services include:
- Server Management Solutions
- High-Density Server Solutions
- N+1 Power Solutions • Full Installation
- Thermal Management

Avocent
APC Legendary Reliability®

www.premiersolutionsco.com

PREMIER SOLUTIONS CO.
Serving The Information Technology Industry

17150 Newhope St. Suite 206
Fountain Valley, CA 92708
Phone: (714) 557-5800

Keeping Software Up To Date

Why It's Important For SMEs To Keep Software Current

by Curt Harler

• • •

MOST IT PEOPLE WOULD not walk into a business meeting in a '70s-style leisure suit or turn-of-the-century bloomers. However, the sad fact is that many of them have network software that is just as out-of-date—with operating systems that hail from yesteryear or service packs that need updating.

"Not being on the current release really inhibits you from troubleshooting problems with the vendor," says Eric Nelson, director of Alteritech (www.alteritech.com), a wholly-owned subsidiary of Acumen Solutions. Acumen (www.acumensolutions.com) is a vendor-independent IT professional services and business and technology consulting firm that specializes in IT professional services and application development for SMEs.

"The first question you will be asked (by a vendor's help desk) is: 'Are you on the current release of your version?' Until you try that, they really don't want to waste their time trying to help you," Nelson says.

"For many OS and software packages, you have to install the service packs in order to achieve the current version/release features/ functions," he notes. If an SME needs something the current service pack fixes or provides, that pack must be installed. "Otherwise, one again needs to consider other aspects like business drivers or how well a vendor does with their initial service pack releases vs. subsequent 'patched' service packs," he adds.

Knowing When To Update

Wonder what really needs to be added? Late last month, Microsoft released new compatibility packs via its Windows Update—a must-follow for any IT manager at an SME. This is an assortment of fixes that address a specific, small set of reliability or performance issues. While they are nice to have, these fixes are very narrow in scope and are better chased when the vital fixes are all up-to-date.

For many SMEs, frequency of updates is one of those "it depends" situations. "Does your company consider IT as a strategic asset or as a tactical cost?" Nelson asks.

Companies that consider IT strategic will be first or early adopters of new OS versions. Companies that view IT as a tactical enabler need to make sure that their current OS version/release is still fully supported by the vendor, at a minimum.

"Cost is a significant consideration," Nelson says. "For Exxon/Mobil to consider a significant OS upgrade is a much more complex decision requiring clear cost/benefit analysis vs. a small real-estate company wanting to enable new mobile collaboration capabilities in a new OS."

If you are running a version that has been end-of-lifed by the vendor or is on limited support with no further patches available, your ability to troubleshoot or mitigate issues is limited, Nelson points out.

When a user's computer (say, a laptop from home) conflicts with the service pack on the network, the network should trump any other use. "One should never allow a noncorporate asset to access the corporate network as a matter of policy," Nelson says.

"This is not to say Web-based remote application access should be prohibited, but as SOP [standard operating procedure], no noncorporate asset should be allowed on the corporate network inside the firewall. Clearly there are exceptions to this, and in such cases the corporate rules always win," he adds.

The Windows Example

One good way to be sure your business is on top of the latest upgrades is simply to read your email and your snail mail. Most trade publications follow major upgrades, too.

In addition, most vendors provide tools for checking their software, Nelson says, adding that there are many cross-platform tools that are part of overall system management suites that check for and prompt for upgrades.

For example, Microsoft has announced it will release the latest Vista version—Windows Vista SP1 beta—to a "moderate-sized" audience. SP1 will contain changes focused on addressing specific reliability and performance issues, supporting new types of hardware, and adding support for several emerging standards.

Microsoft has announced it will release Windows Server 2008, Visual Studio 2008, and Microsoft SQL Server 2008 on Feb. 27, 2008, in Los Angeles.

Microsoft says it is targeting first quarter of next year for Vista SP1. However, any firm date is pending customer feedback from the beta release. Microsoft frequently uses the user community to debug its software releases. SP1 promises improved security, management, and deployment benefits, but most SMEs are likely to benefit from waiting until the kinks have been ironed out.

Microsoft also is bringing out Service Pack 3 for Windows XP this month. Again, the company has targeted the first half of next year for an RTM release.

"It is a standard practice to release a service pack as a release nears end-of-life for the convenience to our customers and partners," a Microsoft spokesperson says. The WinXP SP3 is a rollup of previously released updates for WinXP, including security updates, out-of-band releases, and hotfixes.

Microsoft says SP3 will offer users "a small number" of new updates. However, it will not significantly change WinXP.

Other Options

Virtual desktop solutions can completely mitigate the whole issue of forcing out updates, Nelson says. "Virtual server technology has been out for some time and is widely accepted," he says. "The virtual desktop—from Citrix, Provision Networks, and other vendors—lets IT put out a thin client and control everything that is delivered to the desktop." There are no updates, virus or spam packages, service packs, or new releases that have to be pushed to the desktop. "You can control what they have access to all day," Nelson says.

Meanwhile, Microsoft announced its own virtualization product release.

"Windows Server virtualization will be a core feature in Windows Server 2008," a company spokesperson says. Microsoft promises a flexible platform and better manageability with the new platform. Microsoft was scheduled to announce and discuss in-depth its Longhorn platform in a Webcast on Sept. 27.

While Microsoft currently has 90 to 95% of the market, solutions such as Google Apps appeal to specific user segments such as educational institutions (Arizona State University, for example) and factory workers who have no email needs. They are not for everyone, however. A recent report from the Burton Group, for instance, says companies should think twice about using Google Apps. Yet, it has its place. "Google is a significantly less expensive alternative for large organizations," Nelson says, pointing out that Google runs about 20% of the cost of a full Microsoft solution at large enterprises.

For the operations with fewer than 1,000 seats, the solution is less compelling financially. However, for SMEs where most employees are not knowledge workers and the workstations do not require email or collaboration software, a program such as Google is a good alternative. P

Tips For Combating Missing Service Packs & Outdated OSes

- Keep up-to-date on the latest versions of your primary software packages. It makes it a lot easier to get quick assistance from the vendor's help desk.
- Be especially careful that all mobile computing units are up-to-date—especially with spam control, virus protection, and other software that helps protect the core network.
- If your IT staff is large enough and sophisticated enough, look at alternatives to Microsoft-based software. Microsoft is good, but the overwhelming majority of attacks are against Microsoft-based programs. Smaller firms are probably better advised to stick with Microsoft and beef up protection.
- Virtual server technology allows SMEs to put out a thin client and control everything that is delivered to the desktop centrally.

It's All Right Here,
In A No-Nonsense Format

- Product Showcases
- Information Columnists
- Leading Manufacturers
- Technology News & Information

Don't Miss A Single Week. Call 800.819.9014
or go to PROCESSOR.COM today!

Antivirus & Security Issues

So What's The Big Deal About A Little Malware?

by Chris A. MacKinnon

• • •

IT'S A STORY THAT'S been told time and time again, but for good reason, antivirus and security issues are still being preached to the IT masses. Believe it or not, you still hear grumblings of small to midsized enterprises that get hit hard because their end points have no active or installed antivirus or security programs. And there are still end points out there with active viruses that haven't been dealt with yet. Chris Simmons, director of product strategy at Fortinet (www.fortinet.com), says SMEs are subject to the same network-level threats and content-level threats as larger enterprises.

A Threat Is A Threat

Simmons says although SMEs are equally threatened, they usually have much more limited IT staff to deal with security incidents. He says as a result, a security incident involving an endpoint system usually impacts this segment of businesses greater than larger organizations. He notes, "The effects of a security incident involving endpoint systems vary greatly and can range from simple loss of productivity due to the inability to use the machine to much greater consequences, such as loss of business-critical data or loss of customer personal information."

Randy Abrams, director of technical education at ESET (www.eset.com), says the term used for end points with no security programs on them is "owned." He comments, "Depending on the function of the device, it can be used to relay spam, host illegal content, and participate in denial-of-service attacks against the owner or other businesses. When a threat is not detected by AV [antivirus], a company that practices defense in-depth is in a far better position to discover problems, contain them, and mitigate damage." Abrams says the impact to SMEs is almost identical to the impact to large corporations, with the exception of the PR budget they have available to spend on damage control.

In Simmons' opinion, the botnet trend that has been observed during the past couple of years continues to escalate, with any infected end point being viewed as an asset in an attacker's arsenal. "More often than not," he says, "smaller organizations have less security systems in place and are less prepared to deal with the impact of a security incident."

Apparently, the threat isn't going away anytime soon. Abrams says the threats to SMEs include malicious software, unauthorized access (both physical and digital), and inside espionage. He says malicious software is used for purposes including the extraction of proprietary information for competitive advantage, the use of company computers to host illegal content (such as child porn or stolen credit card information), attacks against other companies and Web sites, identity theft from employees, and to gain access to corporate networks.

Abrams provides a real example of a security issue. "A keystroke logger was installed on a company's computer. The computer was used to accept credit card payments. Each customer that made a payment provided enough credit card information for a thief to make purchases with those credit cards. The same infected computer immediately contacted the payment processing center, and the keylogger logged the company's payment processing account number, username, and password, giving the attacker access to that account, as well."

Listen Up

So who in the data center needs to be concerned? According to Simmons, email administrators, file server administrators, network operators, and virtually any administrator who is responsible for a critical business system. He says most threats arrive today through the Web or email, but from that point and beyond, the threat can impact the entire organization's IT infrastructure. Abrams agrees and says, "It really needs to be everybody. The specific person who is responsible for decisions will depend upon the IT structure and individual competencies, but if you do not have a culture of security in your data center, then your company is at significantly more risk."

To do their part, Abrams says SMEs need to practice defense in-depth. He says policies surrounding the use of company resources are the starting point. He continues, "Security hardware and software provides additional levels of defense. Intrusion prevention and detection are also good to have on the front line. Auditing is another necessity, as well. While antivirus software is a critical component, it cannot do the job alone. And don't assume that because you configured your systems, they will stay properly configured; it's important to periodically verify configuration."

In Simmons' opinion, any organization that relies on IT systems for business operations should have multithreat security systems in place at the network perimeter, within the core data center, and also at the end point to best defend against threats. In addition to this, Simmons says the organization should have a security incidence response plan in place to react to anything that manages to find its way through the current security infrastructure.

Help Is On The Way

Simmons says Fortinet offers multithreat security solutions that protect networks at every stage. The company's FortiGate Multi-Threat Security Systems, for example, act at the network level to effectively defend the infrastructure from both network-level and content-level threats. Fortinet's FortiClient End Point Security resides on end-user devices, including desktops and mobile devices such as smartphones, and helps protect single systems from attack.

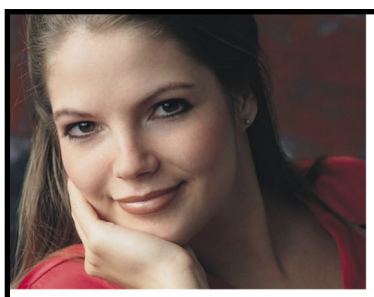
Abrams says ESET was founded in 1992 and has been providing anti-malware software ever since. He adds, "NOD32 detects and blocks viruses, worms, bots, keyloggers, spyware, adware, and other threats. NOD32 augments traditional signatures with advanced heuristics to provide the best proactive protection against unknown threats for which signatures do not exist." He says the product is enterprise-ready (as evidenced by the Ontario Ministry of Education's selection of NOD32 for 300,000 PCs). With versions for Windows, Linux, BSD, Novell, Lotus, and Exchange, NOD32 supports a variety of diverse environments.

According to Abrams, hackers can and will break into networks for malicious reasons. In some cases, he says information is used to extort a victimized company. He says sometimes insiders are often able to do the most damage, abusing legitimate access to proprietary information outside of the confines of the corporate network. He concludes, "Education will help prevent people from inadvertently putting their own companies at risk." P

Hackers can and will break into networks for malicious reasons.

Tips For Combating Antivirus & Security Issues

- Consider both network-level (vulnerability exploits) and content-level (malware) threats when choosing the most effective security system for your network.
- Implement a multilayered security system, one that acts at the perimeter, core/data center, and end point.
- Have a plan. Develop a security incident response plan that will minimize the effect of a security breach if security devices fail to mitigate the threat completely.
- The best tools are of little use in the hands of an unskilled user. Even if it is only 15 minutes each week, ongoing security education for all users is essential.
- If an antivirus product screams and there's nobody there to hear it, is there a virus? Do you know if your intrusion prevention system is screaming? Proactive protection is the only serious approach to security.



Thanks to DMD, we don't have to sit on our old computer equipment anymore.

When it comes to IT equipment liquidation or disposal, we are serious. Let us worry about data security and destruction, EPA regulations, transportation, down time and insurance. Don't tie up your resources or take chances with your data or environmental issues.

Call DMD today!
(877) 777-0651

We Purchase:
Computers/Laptops
Networking Equipment
Power/Environmental
Telecom/Network
Complete Data Centers
Printers

We Offer:
Asset Tracking/Reporting
Deinstallation/Packing/Transport
DOD Level Data/Mechanical Destruction
EPA Recycling/Reuse
Ongoing Support Plans
Technology Refresh/Install Programs

Find out why some of the top U.S. companies and Government Agencies call DMD Systems Recovery.

NAID

DMD SYSTEMS RECOVERY, INC.
A Slightly Different Company™
Toll Free: (877) 777-0651 Phone: (602) 307-0180 Fax: (602) 307-0181
Internet: www.dmdsystems.com
Providing QUALITY GOODS and SERVICES for Industry.
Member of AFCOM, Better Business Bureau, Chamber of Commerce. HP Authorized. Member of NAID (National Association for Information Destruction, Inc.)

BBB hp invent

Same Great Information
NEW LOOK

Our new, easier-to-read home page allows you to **quickly find** the **information you need**.

PROCESSOR.COM

Concerned About Application Performance, Network Authentication & Guest Access?

A10 Networks IDaccess & AX Series Provide Industry's Best Price/Performance

TWO NEW PRODUCTS from A10 Networks are designed to provide reliable, cost-effective options for enterprises looking to accelerate and secure their applications.

IDaccess: Authentication & Guest Access

IDaccess is a family of purpose-built, security-hardened 1U appliances that integrate RADIUS, DHCP, Guest Access, and A10's unique IP-to-ID Service. The appliances provide the industry's most cost-effective, integrated network authentication and guest network access solution in their class.

The IDaccess appliances support comprehensive authentication methods and an array of back-end servers. By combining authenticated DHCP with a guest access portal, network administrators have a powerful and flexible network management tool to support all network and guest authentication needs.

IDaccess eases the burden on IT administrators by centralizing authentication for guests and employees, while ensuring guests can only access the resources they need.

Guest Access. Provides a user-friendly and intuitive interface that lets front desk personnel create and manage guest accounts. IDaccess supports authentication for both internal users and guests in a single appliance, eliminating the need to manage multiple devices.

The A10 Networks AX Series accelerates applications, now with models for enterprises and data centers of all sizes.

IDaccess eases the burden on IT administrators by centralizing authentication for both guests and employees.

RADIUS Server. Provides authentication services and supports the latest RADIUS protocols for wireless, wired, remote access, and perimeter security applications.

IP-to-ID. Helps isolate security issues faster and improve compliance reporting by providing instant user identification for any IP or MAC address. Enables tracing of events to individuals employees.

Authenticated DHCP. Provides isolation of unauthorized users and redirects them to authenticate. This allows companies to enforce all users to authenticate without taking the effort to roll out labor-intensive technologies such as 802.1x or network access control.

Reporting. Enhance auditing and long-term record retention with rich identity-based reports, logs, and alerts for all authentication functions.

AX Series: Next-Generation Server Load Balancer

A10 Networks' AX Series is the industry's best price/performance application acceleration switch, helping enterprises maximize application availability through a high-performance and scalable application delivery platform.

The AX's ACOS (Advanced Core Operating System) architecture has garnered the company numerous awards and is revolutionary by market standards because of its native multisystems support, which includes an optimized multi-CPU architecture built from the ground up designed for performance, scalability, and reliability.

The AX's ACOS architecture scales performance across multiple decoupled CPUs and specialized programmable ASICs linearly to ensure maximum scalable performance, including when all of the features are turned on. The AX Series' aRule Advanced Scripting technology provides ultimate policy creation flexibility to deliver rich traffic inspection and switching capabilities, helping organizations adapt to ever-changing conditions and application types.

The two newest AX Series appliances, 2000 and 2100, are 2U appliances designed for enterprise data centers and server farms. The AX 2000 has two CPUs, 2GB of memory, eight Gigabit over copper ports, two G small-form factor pluggable fiber ports, and an 80GB hard drive. The AX 2100 has those same components, plus an additional two CPUs and two G small-form factor pluggable fiber ports; the 2100 also has dual 80GB RAID 1 hard drives.

All AX models feature carrier-grade hardware components, the industry's best SSL acceleration and L4-7 acceleration, support for IPv4 and IPv6, and an industry-standard command-line interface and easy-to-use GUI.

Key benefits:

- Improves user application response times
- Tuned for multiple CPUs with multiple cores
- Provides Five 9s reliability for accelerated applications
- Scales server farm capacity with advanced server load balancing
- aRule scripting language future-proofs against changing business requirements
- Provides best price/performance per watt in a compact 2U form factor

A10 Networks IDaccess & AX Series

The AX Series is the industry's best price/performance application acceleration switch; IDaccess is a family of integrated network authentication and guest access appliances

(888) 210-6363

www.A10networks.com/processor

A10 Networks

hergo®

TECHNICAL FURNITURE

#1 QUALITY SOURCE FOR WORKSPACE SOLUTIONS

An original equipment manufacturer since its inception in 1992, Hergo remains a trusted source for technical furniture, computer enclosures/ cabinets, relay racks, LCD mounting solutions and command & control centers.

We are technology people who understand your computing workspace needs.

As part of our 100% customer satisfaction guarantee, Hergo offers free space design and consultation, including 3-D CAD drawings and simulated environment renderings to ensure maximized user space and productivity.

Hergo is an approved supplier to all branches of the U.S. Government.
GSA Contract # GS-29F-0133G

888.222.7270
hergo.com

▼ RACKMOUNT ENCLOSURES / CABINETS ▼ RELAY RACKS ▼ LCD ARMS & ASSEMBLIES

▼ OPEN RACKS | SERVER FARMS AND DATA CENTERS

▼ COMMAND AND CONTROL CENTERS ▼ PACS WORKSTATIONS ▼ TRAINING DESKS ▼ MOBILE CARTS

hergo® TECHNICAL FURNITURE 56-01 55th Avenue, Maspeth, NY 11378 | Tel: 888.222.7270 | Fax: 888.410.0671

Terms, specifications & appearance are subject to change without prior notice • © 2007 hergo®

High Efficiency Power Solution for Industrial (server, medical...) Applications

EMACS
www.zippy.com

M1Q2-5650V

Trade Show News
2007
November 13-15
global gaming expo

3 Guarantees

- True output wattages
- True safety certificates
- True 3-year warranty

- 1U redundant 650W (module 52x320x40mm)
- 12V max output 54A
- Industrial grade design for server
- Operating temperature: 0 ~ 50 degrees C
- With Inrush current limiter
- Full range 90~264VAC with active PFC
- Up to 88% efficiency at typical load*

Medical

MV1E-5350-350W
Meet EN-60601

Heavy Duty 80 PLUS

V1E-5350V-350W / 1U
80 PLUS certified
Over 85% Efficiency*

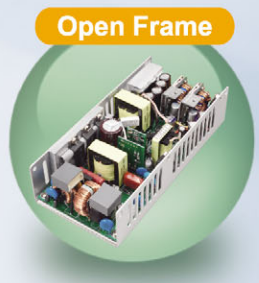
Redundant

M1Z2-5500V-500W / 2U
IPMI I2C Optional
Over 80% Efficiency*

DC Input-48V

DM2W-6500F-500W / 2U
Positronic/Terminal

Open Frame



Q1A-5120V-120W
Over 80% Efficiency*

*Efficiency is subjected at specific loading condition.

ZIPPY TECHNOLOGY CORP.

ZIPPY USA INC. - U.S. (West) | TEL：(949) 366-9525 E-mail: powerusa@zippy.com
ZIPPY USA INC. - U.S. (East) | TEL：(973) 463-9499 E-mail: edward@zippy.com
ZIPPY TECHNOLOGY CANADA INC. | TEL：(604) 278-6615 E-mail: ian@zippy.com

PROCESSOR.COM

Need Equipment? Have Something To Sell? Use Processor.com.

Processor's main goal is to bring together buyers and sellers of data center equipment. Both the print publication and Web site include many features designed to achieve that goal: no-nonsense articles, product listings, our All-In One Search tool, and free For-Sale Listings and Want-To-Buy Messages.

As a *Processor* reader, if you're in need of a particular piece of equipment or have an unused piece of equipment in your data center, take advantage of our For-Sale Listings and Want-To-Buy messages at www.Processor.com.

For-Sale Listing

On the Processor.com home page, you'll see a **Post A Free** menu in the upper left of the blue bar running down the left side of the page. Click it and then click For-Sale Listing. If you're not logged in or registered on our site, you'll be prompted to do so.

Once you're registered and logged in, you'll see the Adding A Listing form. Double-check your company name and contact information. If something is incorrect, click the Change Contact Information link.

After you've verified your contact information, choose the manufacturer name from the drop-down box or click the appropriate letter link. Click Continue. Complete the information on the following page, making sure to include as much information as possible. If you do not have a picture of the item for sale, click Finish. If you do have a picture of the item, click the Add Photos button at the bottom of the page to browse for and select the photo.

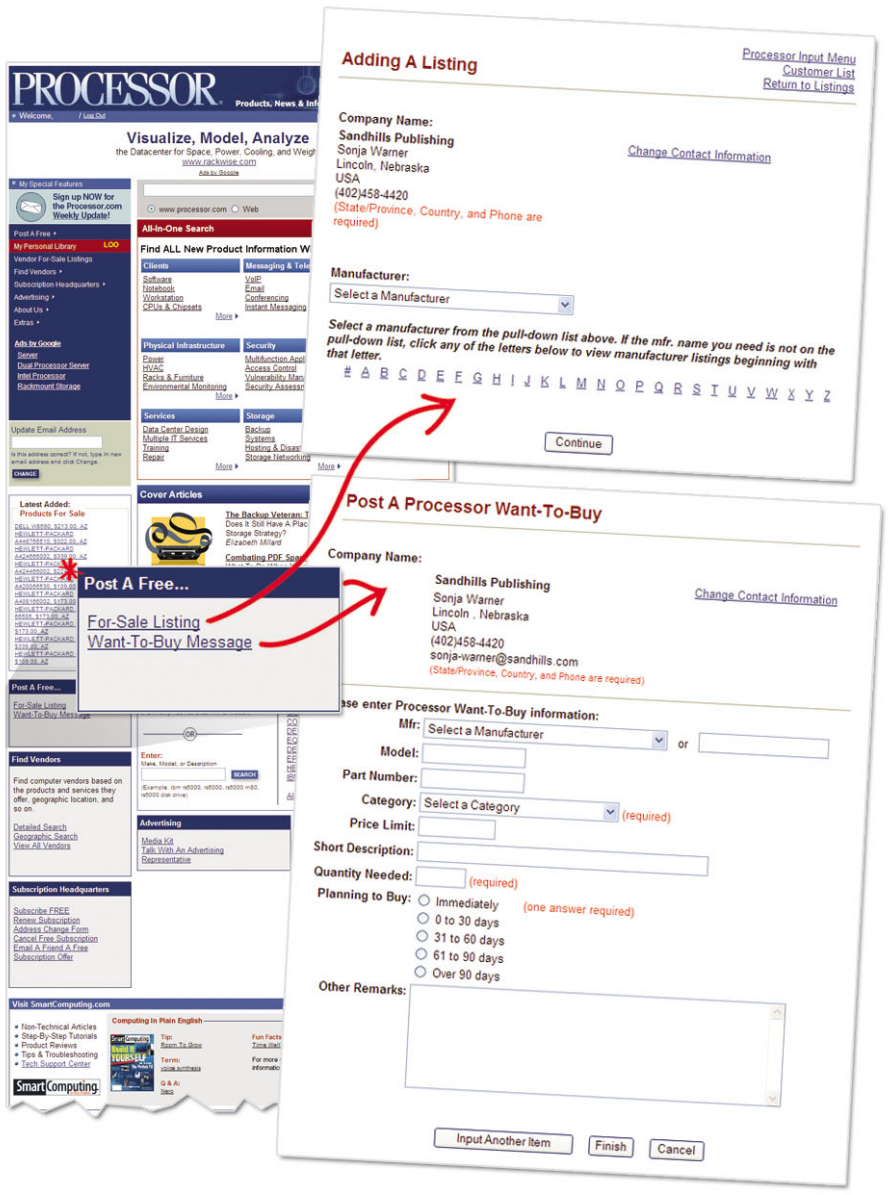
Your For-Sale Listing will be sent to Processor.com, which will check the accuracy of the information and then post the listing online.

Want-To-Buy Message

From the home page, click Want-To-Buy Message under the Post A Free menu. If you're not logged in or registered on our site, you'll be prompted to do so.

After you've registered and logged in, you'll see the Post A Processor Want-To-Buy form. Start by double-checking your company name and contact information. If something is incorrect, click the Change Contact Information link.

Once you've verified your contact information, complete the form, making sure to include as much information as possible. If you're in need of another piece of equipment, click Input Another Item and complete the form. Once you're done, click Finish. Your Want-To-Buy will be listed on Processor.com for 30 days in a special area only registered dealers can see.



We're constantly striving to improve our tools. If you have any suggestions for improving our Web site or can't find the information you're looking for, send an email to editor@processor.com or give us a call at (800) 544-1264.

Product Releases

Clients

■ **Datamax** announced DMXNet Mobile, software that enables control of printing remotely from a wireless touchscreen handheld device. Available for the A-Class, H-Class, I-Class, M-Class, and W-Class families of Datamax printers, DMXNet Mobile was developed for Datamax by MCL Technologies.

. . . . .

■ **Dell** added a managed hardware-based encryption solution to its Latitude D630 and D830 notebooks. The combination of Seagate Momentus FDE (full-disk encryption) hard drives and Wave Systems' EMBASSY solutions provides a number of advantages over software-based encryption, including stronger security, faster performance, and always-on encryption. Customers can securely manage encrypted drives, set up and recover passwords, perform user management, and manage preboot authentication using Wave's EMBASSY Trust Suite for Dell 3.0 Enterprise software and Embassy Remote Administration Server.

. . . . .

■ **Imagine Solutions** has introduced Encapture 3.0, a distributed capture product. Encapture 3.0 includes single sign-on support, advanced security options, robust monitoring and tracking throughout the capture process, compatibility with select Lexmark and HP MFDs, flexible extension, and centralized administration. Encapture 3.0 protects stored data, as well as data in transit.

. . . . .

■ **Kensington Computer Products** unveiled the SlimBlade Lifestyle Collection line of input devices. This line includes the Kensington SlimBlade Presenter Mouse, SlimBlade Media Mouse, SlimBlade Presenter Media Mouse, SlimBlade Trackball Mouse, and SlimBlade Media Notebook Set. The Kensington SlimBlade Presenter Media Mouse includes a mouse, presenter, and media controller in one unit that slips into your pocket. The trackball in the Kensington SlimBlade Trackball Mouse gives you control even when there's no room to move a mouse and switches back to mouse mode with the push of a button. This mouse uses Bluetooth connectivity to offer up to 30 feet of range. The Kensington SlimBlade Media Notebook Set can be rearranged to suit your needs by swapping the magnetically attached modules on the left or right side of the keyboard. The set includes a wireless keyboard, a 17-key keypad, and a laser mouse. A matching media remote control is available for an additional $19.99.

. . . . .

■ **Kodak** introduced three models of KODAK VERSAMARK V-Series Printing Systems. KODAK VERSAMARK VT3250, VT3350, and VT3400 Printing Systems offer roll-fed CIJ (continuous inkjet) printing that can produce 512 to 1,026 monochrome or color images per minute, depending on the model. The new VERSAMARK V-Series Systems can help printers reduce their cost of producing black-and-white documents by consolidating volume to one device and then using the same device to build their color business. The V-Series Systems handle high-volume variable data print applications for transactional documents, print on demand, direct mail, books, and newspapers for both black-and-white and color applications.

. . . . .

■ **Lenovo** introduced the ThinkCentre A61e ultra small form factor desktop. As the company's smallest, quietest, and most energy-efficient desktop, it has a footprint the size of an average telephone book, whisper-quiet performance, and choices of energy-efficient 45-watt AMD Athlon X2 dual-core and AMD Sempron single-core processors. The ThinkCentre A61e desktop is manufactured with up to 90% reusable/recyclable materials and uses 90% recyclable packaging. It can also be powered by an optional solar panel. This desktop surpasses the U.S. Environmental Protection Agency's Energy Star 4.0 criteria with its 85% efficient power supply. As the first desktop in the industry to run on energy-efficient AMD Athlon X2 dual-core and Sempron single-core processors, it can help users save up to 50% in energy costs annually over previous models. The ThinkCentre A61e and A61 desktops start at approximately $399 and will be available next month.

. . . . .

■ The **Microsoft** BizTalk Server 2006 R2, a core SOA (service-oriented architecture) and BPM (business process management) technology, is now available, Microsoft announced. Its features include advancements for RFID (radio frequency identification) and EDI (electronic data interchange), along with extended interoperability such as ESB (Enterprise Service Bus) Guidance and Line of Business Adapters. The BizTalk Server 2006 R2 provides an integrated platform for supply-chain connectivity and process collaboration, while also connecting intraorganization hub-and-spoke supply-chain processes. Customers are able to extend their SOA capabilities with Microsoft's ESB Guidance, which offers customers architectural guidance, patterns, and practices.

. . . . .

■ **Microsoft Hardware** has introduced the Microsoft Bluetooth Notebook Mouse 5000 and the Wireless Notebook Laser Mouse 7000. These tools are designed to increase productivity on the road and reduce touchpad fatigue, producing wireless technology and a compact design. These mice provide the convenience of Bluetooth technology and include modern design and smart power features. It works with little interference in crowded wireless environments, while the snap-in transceiver on the bottom of the mouse turns the mouse off when snapped in. It also presents High-Definition Laser Technology, soft-grip sides, a magnifier tool, and a back button.

. . . . .

■ **Planar Systems** announced a partnership with **Wyse Technology** to deliver the next generation of integrated thin client network displays. Planar's new ND product line is integrated with the Wyse thin client operating system. Current thin client solutions require a thin client box, a separate monitor, and cabling and power supplies. Planar's ND1750 and ND1950 save valuable desk space, decrease installation time, and simplify cart or wall mounting by using one power supply and integrating the monitor with the Wyse Thin OS. The Wyse Thin OS offers a boot time of less than five seconds and built-in support for Microsoft Terminal Server, Citrix Application Delivery, and VMware VDI (Virtual Desktop Infrastructure) architectures. The Planar ND line will be available next month.

. . . . .

■ **Shuttle Computers** has released its XPC G2 3100, a system based on Intel's G31 Express chipset, which supports Intel's upcoming 45nm Intel Core 2 multicore processors. The chipset includes Intel GMA 3100 with Clear Video Technology. In addition to 45nm support, the G31 Express chipset supports Intel Fast Memory Access and Dual View technology to support dual monitor viewing. Shuttle's G2 3100 will also support up to 4GB of DDR2 800 dual-channel memory, 7.1-channel HD surround-sound audio, Gigabit Ethernet, and more.

Messaging & Telephony

■ **Smith Micro Software** announced a global licensing agreement with **HTC** to preload and distribute Smith Micro's Insignia Mobile Device Management client on the next generation of HTC smartphones. The OMC (Open Management Client) lets HTC deliver firmware updates and handset software application upgrades to mobile devices over-the-air. Smith Micro's OMC also supports file updates, compressed image updates, and multiple sequential updates. The software is backed by a range of integrity checks to ensure the process is secure and fault-tolerant, even during power outages. Additionally, OMC allows IT departments and service providers to run remote diagnostics, upgrade their own applications and core wireless firmware, and add new features.

Networking & VPN

■ **3PAR** released the latest version of its capacity management reporting tool, System Reporter, which now supports tiered-storage metering. The software supports 3PAR InServ Storage Servers and also offers W-based historical performance reporting. According to 3PAR, administrators can take advantage of its threshold-based email notification features to meet service-level agreements. The software notifies administrators of such service level information as service times and throughput. System Reporter is particularly useful for tiered storage. The software offers customizable reports and lets administrators spot configuration policy trends and view information by tier.

. . . . .

■ **AirMagnet** has announced new versions of its wireless LAN planning and deployment optimization tools, including AirMagnet Survey 5.0 and AirMagnet Planner 5.0, which are aimed at enterprises, integrators, and solution providers. The products are available together or as standalone apps. The company says the releases provide state-of-the-art predictive modeling with real-world performance data to users, thus providing a complete Wi-Fi weather map. Additionally, the products give users the tools needed to optimize existing WLAN layouts, expand infrastructure, and plan new deployments. Among the highlights of the release is an automated WLAN modeling and view that compare separate wireless site surveys.

. . . . .

■ **Altera** introduced its Plug & Play Signal Integrity technology available in production Stratix II GX FPGAs. In high-performance systems, the technology allows a single card configuration to connect to any designated system slot while under system power. Altera's new Plug & Play Signal Integrity employs the Adaptive Dispersion Compensation Engine to monitor and adjust for interconnect loss and environmental variations. The Plug & Play Signal Integrity technology continuously adjusts equalizer settings for up to 20 receivers to deliver superior results between 2.5 and 6.375Gbps. To enable the feature, users need to install and run the customer beta release of Quartus II software, version 7.2.

. . . . .

Go to Page 16

www.ccny.com
Computer Connection
of Central New York, Inc.
For all your IT Network & Security Needs
BUYS / SELLS / TRADE-IN / SERVICE / NEW / USED
Sun microsystems COMPAQ Cisco Systems
FORTINET ArrayNetworks BLUEARC
800-566-4786
purchasing@ccny.com sales@ccny.com

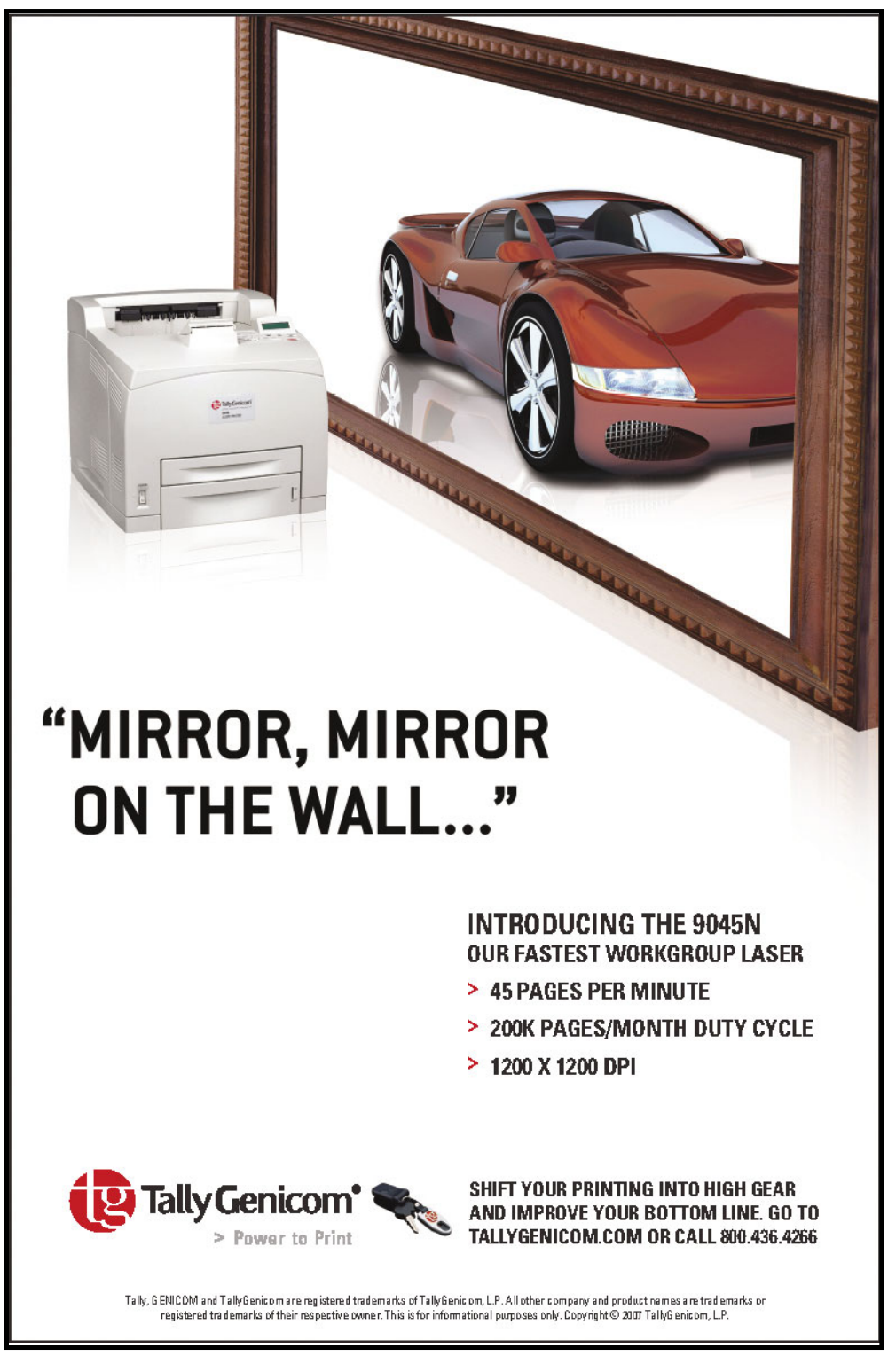
Overwhelmed By NetApp® Support Costs?

Zerowait's prices for service, support and parts will help you shrink the cost of legacy system support down to size!
THE AFFORDABLE ALTERNATIVE TO NETAPP
CONTACT US TODAY FOR A COMPETITIVE QUOTE!
ZEROWAIT
888.811.0808
WWW.ZEROWAIT.COM
SALES@ZEROWAIT.COM

EQUIPMENT MANAGEMENT, INC
Phone: (978) 534-2074
Fax: (978) 534-5574
Email: rob@emisolutions.com rico@emisolutions.com
WEB: www.emisolutions.com
42 Jungle Road, Leominster MA 01453

401930-001 MOTHER BOARD	$1795	311242-001 CPQ System Board SW3900	$14900
AD599A HP MSL6030 CR 2-ULTRIUM 460 DRIVE LIBRARY-RACK	$6900	A5583A HP SURESTORE E 1/20 RACK LIBRARY-OPAL	$1650
154850-002 CPQ ESL9322 BACKPLANE MODULE	$4900	283056-B21 SANSWITCH 2/16-EL	$1900
331196-B21 CPQ MSL6060 2-DRIVE LIBRARY RACK	$7900	287055-B21 SAN SWITCH 2/16	$3900
A4688A HP SURESTORE E BRIDGE FC 4/1	$2900	• Immediate Availabiltiy • Lowest Prices • Blind Shipment	

• TERMINALS • MEMORY • PRINTERS
• DRIVES • PERIPHERALS • CPU'S
• CONTROLLERS and MORE
A minority owned business
BUY, SELL, TRADE ALL BRANDS.....!



Product Releases

Continued from Page 15

■ **BladeLogic** announced that the newest iteration of VMware Infrastructure 3 will now include the BladeLogic Virtualization Manager, which lets VMware virtualization platform users expand support to their production environments. With BladeLogic's Virtualization Manager, organizations can manage, control, and enforce configuration changes to virtual and physical servers. Features of BladeLogic's integration with VMware Infrastructure include support for rich configuration items, cross-platform automation, best-practice workflows, online and offline patching of virtual machines, granular access control templates, and rules-based compliance.

• • • • •

■ **Blade Network Technologies** introduced its new green blade switch, which handles the switching and routing functions of HP's BladeSystem c3000 blade enclosure. The GbE2c Layer 2/3 switch features five copper RJ-45 ports and four SFP module cages for optional fiber uplinks. The offering employs IP forwarding to protect users from unsafe exposure to external networks. Blade Network Technologies' switch delivers wire-speed Gigabit Ethernet switching across five uplink ports, two internal cross-connects, and 16 server ports. The switch also protects HP BladeSystem customers from IP and DNS spoofing via secured access through SSHv2. Protocol support includes HTTPS, RADIUS, TACACS, and TACACS+. The HP GbE2c Layer 2/3 Ethernet Blade Switch for HP BladeSystem c3000 is currently available starting at $1,799.

• • • • •

■ **Business Objects** announced its virtual appliance for Business Objects Crystal Decisions, designed to help medium-sized and large organizations access intelligent reporting, ad hoc query and analysis, and dashboards. The virtual appliance for Business Objects Crystal Decisions comes preinstalled and preconfigured to deliver BI (business intelligence) insight out-of-the-box to organizations with a virtualized infrastructure. The offering was designed to support and work with multiple existing business applications, data sources, and platforms. The virtual appliance for Business Objects Crystal Decisions Standard Edition will be available in the first quarter of next year.

Business Objects has also released its Business Intelligence OnDemand offering, a software-as-a-service platform that delivers business intelligence and data warehouse capabilities without requiring dedicated hardware. Business Intelligence OnDemand secures a copy of an organization's data at the Business Objects OnDemand data center, which lets IT personnel make fast queries for complex data without having to manage or support the business intelligence infrastructure. Business Objects OnDemand customers can access formatted reporting, dashboards, and ad-hoc query and analysis tools.

• • • • •

■ **Chip PC** introduced the latest version of its Xcalibur Global, a policy-based thin client management, VDI brokering, and Terminal Session management platform. Xcalibur Global 1.2 lets users simplify thin client administration, remotely manage devices, employ layered security, deploy remote devices without user intervention, and more. The Xcalibur Global 1.2 VDI Broker lets users manage the assignment of virtual machines to devices and users. Customers will also appreciate the Session Desk Console, which lets users manage terminal sessions. The latest release also supports Microsoft SMS Server.

• • • • •

■ **CiRBA** released CiRBA 4.4, an iteration of CiRBA's consolidation and virtualization software that is now integrated with VMware. New features include VMware Distributed Resource Scheduler Integration, which automatically analyzes, populates, and synchronizes DRS rules; Virtualization Overhead Modeling to calculate CPU overhead; and VMware VMotion Compatibility Analysis, which allows migrating of virtual images with no downtime.

• • • • •

■ **D-Link** released the xStack DGS-3627 (24-port) and DGS-3650 (48-port) stackable Layer 3 Gigabit switches that offer support for IPv6 routing and 10Gb copper or fiber connections. The D-Link xStack DGS-3627 is a 24-port Gigabit-managed switch with three optional 10Gb ports, and the D-Link DGS-3650 is a 48-port Gigabit-managed switch with two optional 10Gb ports. The 3600 series supports optional physical stacking up to 12 units or optional 10Gb fiber or 10Gb copper uplinking to additional networked devices. In addition, D-Link xStack DGS-3627 and -3650 support MAC-based Access Control and Web-based Access Control, which prompt for a username and password before allowing network access. Both models incorporate support for Microsoft's Network Access Protection protocol.

• • • • •

■ **Ecora Software** announced that Auditor Pro 4.1 supports Microsoft Exchange Server 2007. The flagship software helps administrators make sure that IT groups comply with internal or external policies. The new change management monitoring software features Web-based reporting and systems visibility to reduce downtime caused by unstable configuration changes. Companies that migrate to Exchange 2007 can use Auditor Pro 4.1 to view configuration information. Auditor Pro 4.1 includes report templates and policies that let users automatically validate Sarbanes-Oxley, HIPAA, GLBA, 21 CFR Part 11, VISA PCI, FISMA, and NIST IT requirements.

• • • • •

■ **EMC** unveiled the EMC Smarts IPv6 Availability Manager, network management software that supports native IPv6 deployments. The software provides network discovery, mapping, monitoring, and root-cause analysis for IPv6, IPv4, and mixed environments. Smarts IPv6 Availability Manager automates the end-to-end correlation and analysis of networked infrastructures, including IPv6 protocols and devices. Additionally, the software meets U.S. federal government requirements for native IPv6 support. The Smarts IPv6 Availability Manager utilizes EMC Smarts' semantic data model, which maps devices, relationships, behaviors, and interactions across layers of the IT infrastructure. Smarts IPv6 Availability Manager also features device polling and monitoring, tunnel monitoring, and IPv6-to-IPv4 tunneling.

EMC also announced additions to its software portfolio that help customers better automate their data center operations. EMC IT Compliance Analyzer-Application Edition helps ensure configuration compliance of business-critical applications with internal IT governance policies, regulatory requirements, and best practices. EMC IT Process Centre is a module designed to automate IT processes and tasks for enterprise customers across server, application, network, and storage domains. EMC IT Performance Reporter-Network Edition delivers real-time trending and historical data reporting on network availability and performance issues. EMC Smarts IPv6 Availability Manager supports native IPv6 networks and automates the end-to-end

Product Releases

problem correlation and analysis of IPv4 and IPv6 networks.

• • • • •

■ **Enterasys Networks** announced NetSight 3.0, a management software suite for heterogeneous enterprise networks. NetSight 3.0 is designed to provide centralized visibility and control for security-enabled network infrastructure components, advanced security appliances, and Secure Networks policy solutions. The software enables organizations to manage their network as a cohesive whole, rather than as a disparate set of individual devices. New management applications available with NetSight 3.0 include Policy Control Console and NetSight Network Access Control Manager. The Policy Control Console enables authorized non-technical individuals to enable/disable network usage policies to address on-demand needs in conference rooms, classrooms, and other shared-use locations. The NetSight Network Access Control Manager helps organizations know which network workstations are associated with particular users.

• • • • •

■ **ProCurve Networking** by HP has announced the release of ProCurve Switch 8212zl, a high-performance network core switch aimed at enterprise customers that includes ProCurve's lifetime warranty. HP says the release completes ProCurve's core-to-edge network product aimed at unifying network technology, infrastructure, software, operation, management, and support while also reducing complexity and costs. The switch was built upon ProVision ASIC technology, which HP developed. Additionally, the ProCurve Wireless EDGE Service zl Module has been announced. The module adds centralized WLAN configuration, management, and advanced wireless services to the 8212zl core switch and 5400zl edge switch family. The ProCurve Switch 8212zl base system is $23,999. The Wireless Edge Services zl Module is $5,499, the Redundant Wireless Services zl Module $4,999, the Wireless Services 12 RP license $3,999, and Wireless Services zl 48 RP License $12,999.

• • • • •

■ **Kentrox** introduced the W1120 Wireless WAN Gateway, a device designed to use cellular technology for wireless networking. Although it can be used as a primary network router, if the primary network fails, the W1120 will serve as a backup for critical network applications. The device supports HSDPA/UMTS, EDGE, and GPRS/GSM.

• • • • •

■ **Moxa** announced the release of the CN2610 terminal server, which provides dual LAN ports with two IP addresses and two MAC addresses and a Redundant COM mode for robust network redundancy through two active network connections. It connects the two networks using two built-in LAN ports; once dual LAN redundancy is employed, the PC host has continuous access to serial devices attached to the CN2610, providing backup if one fails. In addition, the CN2610 features an LCD control panel for onsite management and real COM/TTY drivers for Windows and Linux.

• • • • •

■ **Multi-Tech Systems** has unveiled the RF825 series cellular-based industrial routers, enabling secure management and control of remote devices using EDGE or CDMA cellular communications. As part of the Multi-Tech RouteFinder Internet Security Appliance family, they are designed to be industrial security devices for companies that need secure M2M communication over cellular networks. The RF825, with the added security of using VPN communications, will control and manage multiple devices over a single cellular connection. In addition, the RF825 Internet Security Appliances feature 15 IPSec or PPTP VPN tunnels, EDGE or CDMA integral modems, strong 3DES and AES encryption, optional 802.11g Wi-Fi, built-in 4-port 10/100Mbps switch, Stateful Packet Inspection firewall, built-in dynamic DNS client, protection against Denial of Service attacks, and Internet access control tools providing client and site filtering.

• • • • •

■ **Netcordia** has announced NetMRI Event Analysis, which can analyze, detect, and diagnose network problems and notify the appropriate individuals of problems within the network. This module adds new functions to NetMRI, including the automatic collection, storage, and indexing of event data. NetMRI Event Analysis analyzes data in the syslog and SNMP event streams. In addition to sending notifications, when possible, NetMRI Event Analysis will also take corrective actions. The product's event indexing, search, and browsing functions are provided through Splunk, the IT Search Engine.

• • • • •

■ **Neverfail** has released Neverfail for IBM Lotus Domino 8, a continuous availability solution for the new Domino 8 server. It will allow IT managers to deploy Notes from a single console and will permit users to access a range of messaging tools. With this solution, customers can predict email issues before they arise, protecting important information at all times. Neverfail is user-focused, and it provides full protection for an organization's entire email environment, including Lotus Domino, antivirus products, and RIM BlackBerrys. In addition, Neverfail proactively monitors the health of the entire email environment, including server hardware, network infrastructure, the application, and the operating system.

• • • • •

■ The **Opsware** Network Automation System 7 increases IT managers' abilities to analyze software and remediate problems, network run-time compliance enforcement, next-generation networking support, and process-powered network automation. Opsware Network Automation System 7 also helps IT managers automate networking between servers without the need for manual integration and detects problems in real time and alerts IT staff to system status, allowing for automated remediation of problems.

• • • • •

■ **PlateSpin** has announced the availability of version 3.1 of its PowerRecon Virtual Infrastructure Edition data center planning and analysis product, with new features for managing, billing, and optimizing VMware Infrastructure settings. Key features include Virtual Machine Growth Reporting, which manages and monitors the growth of VMware Infrastructure; Flexible Charge-back Reporting, which tracks, assigns, or reports on costs and allocates IT charges to different business units; VMware VirtualCenter Integration, which improves data center management and operations; One-click Inventory Collection; and Accelerated Discovery for discovery of the entire network. PowerRecon 3.1 Virtual InfraStructure Edition is available from PlateSpin resellers with pricing based on a per-VMware ESX Server CPU model.

• • • • •

■ New from **Trendnet** is the TEW-633GR Wireless N Gigabit Router with an optimized Atheros xspaNTM chipset. It's built for speedy wireless throughput, strong signals, and extended range with three MIMO (Multiple Input/Multiple Output) antennas. Security features include WPA2-PSK,

Go to Page 18

Visit www.istor.com to receive your complimentary copy of **"Bringing iSCSI Into Focus"** a white paper by analyst Mark Ferelli

Disappointed with a lack of performance in your current iSCSI or Fibre Channel-based storage? iStor Networks, Inc. is in a class of its own, providing the System 2 Solution high-performance iSCSI IP Storage.

iStor Delivers iSCSI

iStor found inspiration when it created the highest performance, up to 1160 MB/s, and most robust iSCSI products. The resulting solutions provide companies with the ability to overcome technology and total cost of ownership limitations in DAS, SAN, and NAS environments.

GigaStorATX™

The System

Fully-integrated GigaStorATX 1GbE and 10GbE controllers conform to the ATX form factor specifications, providing a cost-effective performance-based iSCSI Storage System.

iS325

The Solution

For VAR's and System Integrators that require a vendor-provided enclosure, iStor offers the iS325 Solution. The iS325 includes the GigaStorATX System supporting eight ports of GbE or a single 10GbE for iSCSI connection, with capacity for up to 15 customer-supplied high-capacity sATA drives.

When it comes to high-performance, feature-rich, and cost-effective iSCSI RAID storage, iStor Networks solutions should be on your evaluation short list. iStor offers you the balance of price and performance that makes iSCSI IP Storage an obvious "YES" decision for organizations of all sizes or sophistication.

Currently Enrolling
iStor-inAbled™
Partner Program
Contact iStor at info@istor.com

© 2007 iStor Networks, Inc. iStor Networks, Inc. is a registered trademark, and the iStor Networks logo and GigaStorATX are trademarks of iStor Networks, Inc. Photo courtesy of Outerlimits Offshore Powerboats. All rights reserved worldwide.

iStor Networks, Inc.®
www.iStor.com
(949) 753-8999

Product Releases

Continued from Page 17

WPS, NAT, NAPT, and SPI. The TEW-633GR also features Ubicom's StreamEngine QoS (Quality of Service) technology, which prioritizes latency-sensitive applications to reduce lag.

• • • • •

■ **Willtek Communications** has announced the Willtek 9103 Handheld Spectrum Analyzer, which supports measurements of up to 7.5GHz. This device is compatible with many microwave applications and can take the same measurements as a standard desktop spectrum analyzer. It supports channel power, occupied bandwidth, adjacent channel power ratio, and other measurements. Options are also available to add support for distance to fault, voltage standing wave ratio, and other tracking generator-based cable measurements. RMS detection, radiation emission measurements, and RF pollution measurements are also available through optional configurations.

Physical Infrastructure

■ **Avocent** unveiled the Cyclades PM 42 intelligent power distribution unit, which delivers switched, remotely manageable three-phase power to sensitive always-on data center equipment. Avocent's Cyclades PM 42 accepts a single three-phase input voltage and converts it to three split-phase power circuits in a bid to power an entire data center rack. You can choose to run the system on a single circuit or on two circuits for an additional level of redundancy. When paired with Avocent's DSView 3 management software, users can remotely reboot the PM 42, recycle power, monitor power levels, and remotely manage the unit by setting current thresholds. The PM 42 supports up to 8.6kW of power and provides 42 outlets that can support 42 1U servers. Users can daisy-chain up to three PM 42s to yield a total of 126 outlets.

• • • • •

■ **AVTECH Software** gave its Room Alert line of IT & Facilities Environment Monitoring products a technology boost with its HI (Heat Index) functionality. Businesses can use the HI functionality to meet union-required Heat Index parameters in environments where employees load trucks or pack orders. The Room Alert products monitor temperature, humidity, smoke, room entry, power, floods, and now heat indexes. The HI values are visible via the SNMP and Web browser interface. The HI shows administrators how hot the area feels. Room Alert combines the current temperature and relative humidity to determine the HI. Customers who already have Room Alert can get the new HI functionality via an upgrade.

• • • • •

■ **Chatsworth Products** is offering a line of cost-effective cable management products aimed at protecting and supporting cabling technologies such as Cat 6a and fiber. Chatsworth says its Cat 6a-compatible products help obtain extended cable performance and data transmission by using extended cable management fingers and larger cable capacities. Additionally, by controlling cable bend radius, its products help customers meet ANSI/TIA/EIA installation guidelines, ensuring that installations meet or exceed industry standards. Overall, Chatsworth has more than 500 standard cable management products available.

• • • • •

■ **Emerson Network Power** announced cover kits for three AC-DC power supply series, including the Artesyn NLP250, TLP150, and Astec LPS120. It's targeting the power supplies at system integrators and OEMs who want 120 to 250W power band packages. Previously, Emerson offered the kits in open-frame packages, but the cover kits offer additional electrical safety and simplify mechanical integration. The kits support 1U-rack and other low-profile applications and offer 12, 24, or 48V main outputs. The LPS120 also offers 3.3, 5, and 15V options, as well as 5V standby and 12V fan outputs. Customers can buy 12V and 24V versions of the Artesyn NLP250 and TLP150 models that have medical approvals for patient monitoring systems and other medical equipment. Customers can buy the cover kits separately or order power supplies that have them preinstalled. The kits include mounting brackets, screws, and insulating plates. Emerson offers sample quantities, and production quantities start at $6 per unit.

• • • • •

■ **Falcon Electric** has introduced the industrial-grade SSG Series UPS Plus family. This line of products is part of a regenerative online series that provides power protection to manufacturing, automation, assembly, and similar industries. The products range from 1.5 to 3kVA and can operate in temperatures as high as 131 degrees Fahrenheit. The new devices also offer better battery monitoring and replacement notification than earlier versions. In addition, the SSG Series UPS Plus products use hot-swappable battery packs, which slide out of the UPS' front panel so that it is not necessary to remove the UPS from the rack. The SSG Series starts at $1,390 for the 1.5kVA SSG1.5KRM-1.

• • • • •

■ **Panduit** has announced NetManager High Capacity Horizontal Cable Managers, molded products that help to organize, manage, and protect high-performance cabling. The cable managers have sloped inset fingers, wide front finger openings, a deeper channel, and D-ring-style rear managers. Panduit offers the cable managers in 1, 2, 3, and 4RU sizes, in front-and-back or front-only options. Panduit also offers dual-hinged covers.

Security

■ **Blue Ridge Networks** announced the Blue Ridge/Secure TokenGuard, which eliminates the impact of malware on widely used applications. Secure TokenGuard operates without any virus definitions but instead protects with a focus on authorization privileges. The antivirus software only allows authorized users control over commonly used applications, rejecting any malware or invaders that are attempting access to the system. Secure TokenGuard is available for $29.95 per user or available for free download to Blue Ridge/SecureVirtual Ethernet Service customers beginning Oct. 1.

• • • • •

■ **Clearswift** announced that MIMEsweeper for Domino 8.1 is IBM-certified for IBM Lotus Domino Software. The software lets users manage threats in Domino mail and other databases. The software stops viruses and malware and offers reporting capabilities. It also stops offensive or copyrighted material, prevents the distribution of nonbusiness data, and blocks sensitive data. MIMEsweeper for Domino reduces litigation, protects the infrastructure, and improves staff productivity. It also includes some new features, including predefined policies, granular policy support, clustering support, and weighted text scanning. It supports any Domino servers that run R6, R7, or R8 on Windows.

• • • • •

■ **Ingrian Networks** and **Paymetric** have joined forces to provide a security solution for credit card companies. Using Ingrian's DataSecure Platform and Paymetric's XiSecure encryption management software, the companies seek to provide an integrated approach to encryption and security. XiSecure assigns tokens to each card number, storing the actual information elsewhere, and then the numbers are encrypted using DataSecure.

• • • • •

■ **McAfee** announced McAfee ePO (ePolicy Orchestrator) 4.0, a platform that lets enterprises centrally manage security and compliance products from multiple vendors. ePO 4.0 offers the industry's first console to unite the management of network security, data security, and endpoint security, including all of a company's PCs and servers. ePO 4.0 works with both physical and virtual systems. ePO reduces security exposure, lowers costs, ensures business continuity, and helps customers meet industry compliance requirements. McAfee ePolicy Orchestrator will be available at no extra cost to current customers who have an existing maintenance contract.

McAfee also announced a program for technology companies who want to integrate with McAfee ePO (ePolicy Orchestrator). The McAfee Security Innovation Alliance will provide a set of tools designed to help integrate third-party applications with McAfee's security and compliance risk management technology. Through the Security Innovation Alliance, McAfee will work with technology partners to deliver integrated, heterogeneous security and compliance optimization. The McAfee Security Innovation Alliance provides APIs (application programming interfaces) and software development kits for faster integration with ePO.

• • • • •

■ **Secude** has announced Secude secure notebook 8.0.2, which provides full disk encryption and preboot authentication to ensure the security of confidential business data that is stored on notebooks, desktops, and external mass storage devices. This latest version also offers faster boot times. In addition, Siemens CardOS API is now built into Secude secure notebook. Siemens CardOS is a certified smart card OS with active and passive protection of stored data, certificates, and cryptographic keys.

• • • • •

■ **St. Bernard Software** has announced the availability of iPrism M11000, a dedicated Web-filtering appliance. The M11000 includes significant performance increases (80% over the existing iPrism M3100) that let it meet demands of larger enterprises. St. Bernard has also released iPrism 5.0 for all iPrism appliances. The software upgrade includes new features to improve filtering accuracy and to make administering appliances easier. Among the new features is Safe Search, which ensures that appropriate Web content can't be viewed as thumbnails via Google search engine results. M11000 appliances are now available, while iPrism 5.0 will be available later this month to new and existing customers.

• • • • •

■ **Symark Software** has announced PowerADvantage, which manages authentication and configuration. With PowerADvantage, Active Directory gains enhanced authentication, authorization, account access, policy enforcement, and infrastructure management capabilities. PowerADvantage brings Active Directory tools to Unix and Linux systems. The software also improves and centralizes security functions. All authentication requests from Unix and Linux hosts are routed through the PowerADvantage agent to interact with the Active Directory

Go to Page 19

GPS GLOBAL PRINTER SERVICES INCORPORATED

HP Color LJ 4700DN $1079

HP LJ 4250N $699

HP LJ 9000 $999

The Resellers Resource
All printers include parts and labor warranty. This is only a small sample of what we have in stock. Please call for price and availability for other models, accessories and parts.

Over 150 different HP LaserJet printer models in stock!
Buy your HP laser printers from the industry leader. When you purchase a printer from GPS you are buying the best refurbished printers available. We offer a one year warranty on printers and free technical support for the life of the printer. We can provide you with a specific model you are looking for or one of our experienced staff can help you select the printer that will best meet your needs. Your satisfaction is our number one priority, so if you are not completely satisfied with your purchase you can return your printer for a full refund.

Resellers Welcome.

#1 Source for Printers
800-588-3554 • 608-268-4300
www.globalprinter.com • Free Tech Support

CompuSourceTech
Your Source for laser printers

Toll Free: 866-725-4100
Phone: 614-444-4438
Fax: 614-449-5649
www.compusourcetech.com

Model	Price	Model	Price
HP 2280TN	$349.00	HP 4550	$449.00
HP 2300DTN	$449.00	HP 4650DN	$999.00
HP 1220	$249.00	HP 4700N	$1.399.00
HP 1300	$169.00	HP 5000N	$449.00
HP 1320N	$499.00	HP 5100	$899.00
HP 2200D	$249.00	HP 5500DN	$1,399.00
HP 2300D	$349.00	HP 5550DN	$2,199.00
HP 2420	$529.00	HP 9100C	$1,199.00
HP 2430N	$725.00	HP 4100MFP	$849.00
HP 3015	$325.00	HP 4101MFP	$1,399.00
HP 3030	$349.00	HP 4345MFP	$1,999.00
HP 4000	$199.00	HP 9000MFP	$1,999.00
HP 4050TN	$299.00	HP 9040MFP	$3,999.00
HP 4100	$275.00	HP 9050MFP	$4,449.00
HP 4200	$425.00	HP 9500MFP	$4,449.00
HP 4250	$699.00	Lexmark T630N	$649.00
HP 4300	$699.00	Lexmark T640N	$599.00
HP 4350N	$1,149.00	Lexmark E332N	$369.00

We are an authorized reseller for New and Refurbished HP, IBM, Oki Data, and Lexmark Printers
Call for our complete list of printers and accessories!

Product Releases

Continued from Page 18

domain controllers. PowerADvantage will be available in Q1 2008.

• • • • •

■ Compliance with PCI DSS (Payment Card Industry Data Security Standard) is important, so VoyenceControl PCI Advisor from **Voyence** seeks to make it clearer and easier. It embeds the relevant requirements into VoyenceControl so that network behavior is continually monitored for non-compliant situations. It's the first in a new VoyenceControl Compliance Advisor Series encompassing PCI, Sarbox, HIPAA, and other mandates.

Servers

■ **Fujitsu Computer Systems** released the PRIMERGY Econel 230R S1, an entry-level server for the small enterprise. It features dual-core AMD Opteron processors (up to two 2.4GHz) and the storage capacity (up to six SATA or hot-plug SAS/SATA hard drives) needed for a standalone application server, Web server, or terminal server. Customers can install up to 16GB of PC2-5300 DDR2 memory, and the server supports RAID 0, 1, or 1E. The PRIMERGY Econel 230R S1 features four PCI-E and PCI-X slots and integrated remote management features. To help keep data secure, the PRIMERGY Econel server line offers ECC memory protection and integrated RAID disk mirroring. Pricing starts at $1,654.

Fujitsu Computer Systems also announced the PRIMERGY RX330 S1, a scalable server based on AMD's Dual Socket Opteron processors that also supports next-generation AMD quad-core processor technology. The PRIMERGY RX330 S1 features the Fujitsu Integrated Remote Management Controller and PRIMERGY Server Management software to simplify server monitoring and remotely control the server. With a 2U rack form factor, the server can use up to two dual-core AMD Opteron processors (up to 2.8GHz), up to six hot-plug SATA or SAS 3.5-inch hard drives, and up to 32GB of PC2-5300 DDR2 memory. The server offers four PCI-E and PCI-X slots with an additional rear Riser option as well as redundant power supply options.

• • • • •

■ The new "Barcelona" Opterons from AMD are the basis of new native quad-core A+ servers and workstations from **Supermicro**. The processors represent leaps forward in power and energy savings compared to AMD's previous-generation chips. Key features of the Supermicro offerings are densities of up to 160 processor cores and 640GB memory per 7U enclosure, universal I/O design, dual HyperTransport links, efficient VRMs, and support for up to 32 DIMMs in certain models.

• • • • •

■ **Voltaire** says that its InfiniBand products are now available for HP's BladeSystem c3000 enclosure. With Voltaire's switches and InfiniBand software, the new BladeSystem c3000 chassis can bring performance and power savings to remote locations, branch offices, and small IT sites. The system uses Voltaire GridStack and GridVision BladeFM software for RDMA and fabric management.

Storage

■ **Acronis** added to its enterprise-class backup and recovery software packages with the announcement of Acronis True Image Echo, an application that backs up and restores information on virtual and physical networks. The product integrates seamlessly with all Windows- and Linux-based servers. New features include VMDK support, event-driven backups, support for dynamic disks, and wake on LAN.

• • • • •

■ **DataCore** launched its free downloadable version of VMware storage server to run on thin provision VMware virtual machines. DataCore makes thin provisioning an open, network-based service that is compliant with all brands and devices at an affordable cost. The virtualization and consolidation of storage servers lets DataCore replace inefficient storage systems with green systems.

• • • • •

■ **Dynamic Network Factory** released three SASmaster SAS-to-SAS and SATA-to-SAS RAID array models, supporting up to 64TB of storage. The line includes the SASmaster 12sz, 16sz, and 16sz-HA (high availability). Whereas the SASmaster 12sz supports 12 hot-swappable drives, the two 16sz models accept up to 16 hot-swappable drives. The units also have three expansion arrays, letting them support capacities up to 64TB. The SASmaster series can use SAS for host and drive interfaces and support SATA and SAS drives in the same chassis. They support 1TB SATA disk drives, as well as RAID 6. They are enclosed in 2U or 3U rackmount enclosures that include redundant power supplies. They support RAID 0, 1, 5, 6, 10, and 50 and support RAID set spanning across multiple chassis. Each model has 256MB to 2GB of battery-backed cache. They are available at prices ranging from $10,000 to $41,000, and expansion trays start at $8,000.

• • • • •

■ **Emulex** released the HPAnyware, an HBA management solution that supports VMware Infrastructure environments. It manages Fibre Channel storage connectivity from a centralized console, offers control of Emulex LightPulse HBAs in a cross-platform framework, and includes remote-management options. It automates driver configuration and firmware upgrades, and it lets customers manage server virtualization deployments attached to SANs.

Emulex also released the Emulex LightPulse 4Gbps LPe1105-HP Fibre Channel HBA, which supports HP's BladeSystem c3000 enclosure. It is HP-certified and offers midsized customers and remote locations a simplified management of server blades, particularly those who are deploying server blades in a SAN-attached situation.

• • • • •

■ **Enhance Technology** introduced the EnhanceRAID R14 HDS High Definition Storage, a Matrox Axio HD-certified editing and storage solution. EnhanceRAID R14 can handle multiple streams of uncompressed 10-bit 1080i HD for use with broadcasting, post-production facilities, and studios. EnhanceRAID R14 HDS is a single-rackmount optimized U320 SCSI storage system that combines data protection, dual-RAID controller design, and storage management. The unit features a Web-based GUI, which lets users control remote storage from any location. The EnhanceRAID R14 also includes a built-in enterprise RAID 6 and a dynamic online volume expansion enable feature.

Go to Page 20

VPC3106
www.pulizzi.com/vpc
VPC2864-1
www.pulizzi.com/vpc
VPC2864-A1
www.pulizzi.com/vpc

Three Phase Power Distribution

Same Day Shipping On In Stock Power Distribution Units
(Orders placed by 12 PM Central)
www.pulizzi.com/stock

NEW High POWER!

- Three phase input - up to 72 amps single phase power!
- Current meter allows phase balancing/full loading
- Vertical strip requires no rack space - "0"U mounting!
- High power maximum density
- 120 volt and 208 volt configuration

Z-LINE® PULIZZI®
1-877-PULIZZI
(785-4994)

www.pulizzi.com Order Online Today!

Made In The U.S.A. ISO 9001:2000 PRC0307

The Instant ACCESS You Need.

See all that's available today at
www.Processor.com

PROCESSOR.COM®

Product Releases

Continued from Page 19

Additionally, Enhance Technology released a professional line of SAS RAID storage products. The new UltraStor RS16 SS features dual 3Gb SAS connections and a combination of RAID protection and performance. It has a 3U 16-disk SAS storage array and supports RAID 0, 1, 0+1, 3, 5, 6, 10, and 50. It also supports up to 16TB on SAS RAID 5/6. It also supports non-destructive RAID-level migration, multi-path I/O support for Windows workstations and servers, and features Web-based management. It starts at $4,950 for the unpopulated system.

• • • • •

■ **Finisar** introduced 8Gbps long wavelength Fibre Channel SFP+ Transceivers, which are designed for advanced storage networking applications. The 1310nm transceivers support 1.4km and 10km transmission over SMF (single mode fiber) and are suited for FICON and disaster-recovery storage applications. Based on edge-emitting laser technology, the transceivers feature Finisar's Digital Diagnostics technology and a low-power dissipation of less than 1W.

Finisar also introduced a 10Gbps active optical cable designed as an alternative to copper cables for transporting high-speed data in data center, video, consumer, and industrial applications. The cable substitutes a user-friendly copper connector in place of an optical connector to create a low-power alternative for existing copper-based cable interconnects.

• • • • •

■ **IBM** announced the N3300 and the N3600, two new storage products for SMEs from IBM's N3000 series. The systems communicate via Fibre Channel and Ethernet, feature high availability, and can tolerate WAN interruptions. The N3300's capacity is 24.6TB, and the N3600 is scalable up to 69TB on SAS SCSI drives. Prices start at $17,000 and $22,000 for the N3300 and N3600, respectively.

• • • • •

■ **LaCie** unveiled its 2big family of RAID hard drives. The three models—the 2big Dual, 2big Triple, and 2big Network—have 1 to 2TB of storage. High-speed connections utilized include USB 2.0, FireWire 400, FireWire 800, and eSATA II. Features include advanced data backup, restoration, and management for multiple OSes. The 2big can be configured for performance or safety: Safe 100 mode (RAID 1) automatically mirrors data, and Fast mode (RAID 0) simultaneously writes to both disks with redundancy for optimum speed and capacity. The drives will soon be available directly from LaCie starting at $399.

• • • • •

■ **Network Appliance** announced the availability of NetApp CommandCentral Storage by Symantec version 5.0, which includes iSCSI support. CommandCentral Storage 5.0 features the ability to analyze end-to-end storage consumption in heterogeneous physical and virtual environments, while adding support for monitoring and reporting of remote and local replication through integration with NetApp SnapMirror. CommandCentral Storage 5.0 software enhances flexibility and reduces management costs, allowing organizations to manage and meter their storage operations from a single management console in Fibre Channel and IP SAN environments. This helps users reduce the number of tools, scripts, and consoles required to manage their complex storage environments, and in return reduce costs and improve services.

Network Appliance has also announced plans to integrate the NetApp data protection portfolio of solutions with VMware Site Recovery Manager, providing for simpler and automated recovery in virtualized environments. This solution will help IT professionals meet their recovery point and recovery time objectives, while cutting costs, risk, and complexity. Together, VMware Site Recovery Manager and NetApp allow users to set up and configure disaster recovery effortlessly while providing instant failover in case of outages. With this integration, users won't need to have identical hardware at primary and disaster recovery sites.

• • • • •

■ **Overland Storage** has released the REO 4500c, a member of the company's REO Series of disk-based backup, recovery, and VTL appliances. By doubling the amount of backup data a disk can store, it has solved backup, restore, and retention problems that challenge data-protection products. In addition to hardware compression, the REO 4500c platform includes up to 27TB of data capacity, which can be compressed to 45TB of virtual tape; dual 4Gbps Fibre Channel and iSCSI host connectivity; configuration flexibility with up to six VTLs, 32 virtual tape drives, and up to 512 virtual cartridges; up to 16 initiators per VTL device; and dual-redundant power supplies and secure Web-based management. The 4500c is available starting at $36,155.

• • • • •

■ **Promise Technology** gave its E-Class family of SAS RAID products a boost with the introduction of the VTE610fD and the VTE610sD RAID subsystems. The 3U, 16-bay SAS/SATA subsystems support RAID 0, 1, 1E, 5, 6, 10, 50, and 60, as well as up to 2GB of battery-backed cache. The subsystems include 512MB of battery-backed cache by default. They also include PerfectRAID and Predictive Data Migration technologies, which offer error handling and recovery features. Promise added cooling modules and redundant, hot-swappable power supplies, as well as a Web-PAM PROe management suite. Also included is a three-year warranty, as well as free 24/7 phone tech support.

• • • • •

■ The Scalar 50 is a new entry-level tape library from **Quantum**. Designed to be intuitive, the Scalar 50 can grow with your data needs. It's scalable from 38 to 76 slots with an optional module. It's also able to integrate with disk storage in direct-attached and SAN environments with its FC, iSCSI, SAS, and SCSI interfaces. Prices start at $8,000.

• • • • •

■ **Seagate Technology** announced its SV35 Series hard drives, which are specifically designed for optimal performance in digital video surveillance systems and have a top capacity of 1TB, providing 32 full days of high-resolution video streaming. In addition, Seagate is broadening its hard drive offerings targeted at video surveillance applications to include the Seagate Barracuda ES and EE25 Series hard drives. Seagate SV35 Series hard drives enable greater capacity, reliability, performance, and features in digital video surveillance systems and applications through combining Seagate's advancements in hard drive technology with features designed for digital video surveillance recording. The Barracuda ES hard drive provides SATA storage for multidrive enterprise network

PROCESSOR.COM

Subscribe Or Update Your Existing Subscription Online

Whether you want to start receiving your own print copy of *Processor* or need to renew or update an existing subscription, you can do it from the Subscription Headquarters at Processor.com.

Sign Up For A Free Sub

If you aren't receiving your own print copy of *Processor*, we make it quick and simple to sign up for a subscription online. From the home page, choose Subscribe FREE from the Subscription Headquarters menu in the blue bar on the left side of the page. Enter the promotional source code, if available, and then answer the three quick questions. Enter your customer information in the fields and click Send. You'll receive a confirmation page thanking you for your submission.

Renew

To renew your subscription, click the Renew Subscription link from the Subscription Headquarters menu on the Processor.com home page. If you're a registered user of the site and are logged in, the Label Information portion of the page will already be filled in. If not, manually enter the information. On the right side of the form, under New Information, make any updates necessary. Make sure to answer the three questions below the form and choose whether you want to receive the free Weekly Update email, which contains links to all new information added to the site during the past week. Click Send, and a confirmation page will appear.

Update Your Address

To update the address your subscription is mailed to, choose Address Change Form from the Subscription Headquarters menu. Be sure to fill out both sides of the form (if you're registered and logged in, the Old Information side will automatically be filled in). Answer the three questions, choose whether you want to receive the Weekly Update email, and click Send.

Cancel A Subscription

If you no longer want to receive a print copy of the publication, choose Cancel Free Subscription from the Subscription Headquarters menu on the home page. If you're not logged in to the site, you'll be prompted to do so. Simply click Save to be removed from the active subscriber list.

Refer A Friend

If you have a friend or co-worker who could benefit from the valuable information in each week's print issue of *Processor*, let them know how to sign up for their own free subscription. Choose Email A Friend A Free Subscription Offer from the Subscription Headquarters menu. Complete the form and click Send.

We're constantly striving to improve our tools. If you have any suggestions for improving our Web site or can't find the information you're looking for, send an email to editor@processor.com or give us a call at (800) 544-1264.

Product Releases

surveillance applications where storage system redundancy is often required. Seagate's EE25 Series hard drives deliver a combination of storage capacity, data reliability, and environmental ruggedness for surveillance applications in outdoor and mobile situations. The new generation of Seagate SV35 Series hard drives is scheduled to begin shipping in December. The EE25 Series and Barracuda ES Series hard drives are currently available.

. . . . .

■ **STORServer** has announced the release of STORServer Agent for VMware Consolidated Backup. The release is aimed at improving Consolidated Backup's usability. Consolidated Backup was the first backup appliance on the market aimed at protecting vulnerable VMware environments, according to the company. Consolidated Backup controls the backup for each virtual machine through the integration of Backup's utilities and TSM backup-archive client, thus eliminating the need for pre- and post-processing integration scripts. STORServer Agent includes a GUI for managing and reporting virtual machine backups; a scheduler; and a database that includes client configuration, logs, and scheduling information.

. . . . .

■ **SunGard Availability Services** launched a new version of its Paragon software, which helps organizations manage their overall information availability program by making it easier to link business continuity and disaster recovery plans with specific business strategies. The new capabilities advance the Profiles, Impacts, Plans, Situations, and Notifications components of SunGard Paragon. The Profiles component lets administrators profile an organization's infrastructure, environment, and interdependencies. The Impacts component lets organizations conduct a business impact analysis of a potential disruption. This also provides the ability to create surveys. Plans lets organizations create information availability plans. Situations tracks availability plans in real time and allows incident managers to swap individual team members in and out of an incident. Notifications gives organizations the ability to distribute communication directly from any plan or crisis management screen. This feature now supports messages delivered via personal voice recordings in addition to automated text-to-speech.

. . . . .

■ **Winchester's** FlashDisk SX-3498S disk array can hold up to 80 drives with expansion shelves (16 drives in the base unit), which translates to a maximum capacity of 80TB with today's 1TB units. The SATA array features RAID 6 dual parity for protection during otherwise vulnerable rebuild operations. It also can connect to four 4Gb Fibre Channel host ports to provide "SAN-in-a-box" to as many as four servers. Prices start at less than $20,000.

In other news from Winchester, the FlashDisk FC-3400 Series disk array for enterprises now supports up to 38.4TB using 400GB hard drives and optional expansion shelves. The high-speed (1,500MBps and 120,000IOps) FC-3400 Series uses hardware ASICs to accelerate its RAID 6 dual parity configuration. It can also be configured as a RAID 15 or RAID 16 using two RAID 5s or 6s, respectively. The FlashDisk FC-3400 Series is capable of switchless "SAN-in-a-box" connectivity, as well. Pricing starts at less than $20,000.

ETASIS ELECTRONICS CORPORATION

N+1 1U Redundant
EFRP-4553H

- 1500W+550W Output Power
- N+1 Redundant Configuration
- Meet 1U Rackmount System

N+1 2U Redundant
EFRP-2553G

- 550+550 watts Output Power

Support to Dual Nocona Processors

- N+1 Redundant Configuration
- Meet 2U Rackmount System

N+1 3U Redundant
EFRP-3300SG

- 600W+300W Output Power
- N+1 Redundant Configuration
- Meet 3U Rackmount System

N+1 4U Redundant
EFRP-4463G

- 1200W+460W Output Power
- N+1 Redundant Configuration
- Meet 4U Rackmount System

PSII Type 1+1 Mini Redundant Power Supply
EFRP-2462G

- 460+460 watts Output Power
- 1+1 Redundant Configuration
- PSII Mini Redundant Power

SPECIAL PRICE $190

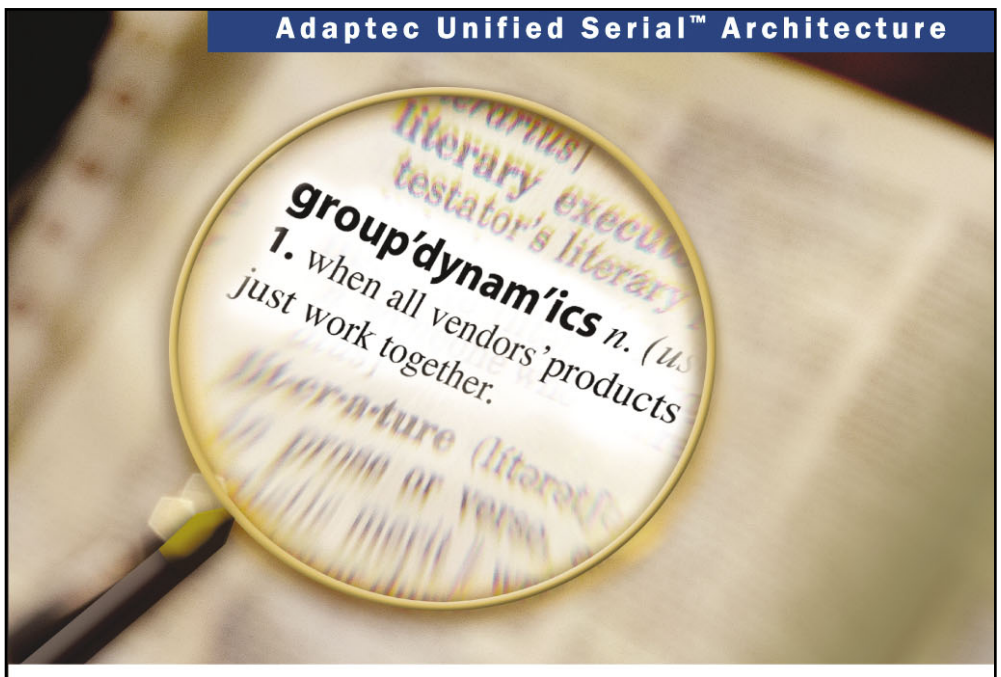
WHOLESALER
RETAILER
WELCOME!

ETASIS ELECTRONICS

There's only one standard™

www.etasis.com.tw

18549 Gale Ave
City of Industry, CA 91748
Phone: (626) 965-6511
Fax: (626) 965-7676



When All the Vendors' Products in Your Storage Infrastructure Just Work Together

The key to good group dynamics is compatibility. Adaptec Unified Serial controllers are proven to work with over 99% of serial devices, making them the right fit for practically any storage infrastructure. They also connect with SATA drives and SAS drives, individually, or together in a single storage solution. No matter what drives you connect to, a solution built on Unified Storage Architecture grows as your business grows, up to 90TB (using 750GB drives).

Adaptec controllers pair perfectly with SATA and SAS products from industry leaders including AIC/Xtore and Hitachi Global Storage Technologies. Take advantage of the high performance and scalability of the Xtore XJ-SA26-212R-B, a 2U with 12-bay SAS/SATA JBOD sustaining up to 12TB SATA and 3.6TB SAS storage capacity plus daisy-chain capability – a truly cost-effective solution for the SMB and enterprise storage market.

Then, attach Hitachi Deskstar® 7K1000 1TB* hard disk drives which leverage the industry's most reliable perpendicular magnetic recording (PMR) techniques and the latest advances in silent acoustics, shock protection, and best-in-class power management.

Put it all together and you've got a storage infrastructure you know will work well together.

Free 30-Day Evaluation
Try the newest Adaptec Unified Serial controllers for 30 days. **Register now at www.adaptec.com/offer168**

AIC Xtore · HITACHI Inspire the Next · adaptec

*A Terabyte (TB) equals one trillion bytes when referring to hard drive capacity; accessible capacity may be less.

Copyright 2007 Adaptec, Inc. All rights reserved. Adaptec and the Adaptec logo are trademarks of Adaptec, Inc. which may be registered in some jurisdictions. All other trademarks and logos used are owned by their respective owners.
Adaptec, Inc., 691 South Milpitas Boulevard, Milpitas, CA 95035

Lose that important file?

Protect against accidental file deletions with NEW Undelete® 5

Now with version protection for Microsoft® Office files

According to the New York Times, file loss costs businesses an estimated $13 billion per year. The problem is that the Windows® recycle bin doesn't capture every deleted file, particularly files deleted over the network and older "saved-over" versions of Microsoft Office files. Not even your backup system provides comprehensive real-time protection.

Now you can get complete up-to-the-minute file protection with instant recovery—get new Undelete 5!

- **NEW!** Version protection allows instant recovery of older versions of Microsoft Word, Excel and PowerPoint® files
- **EXCLUSIVE!** Recovery of deleted files is easy and instant
- **EXCLUSIVE!** Undelete 5 captures and protects all deleted files in real time—even files deleted by other systems over the network. No more lengthy backup restores!
- Server and workstation editions available

Try Undelete FREE!
Visit: www.undelete.com/pro7

For volume license pricing and government or educational discounts, contact your favorite reseller or call 800-829-6468 code 4373

Diskeeper® corporation

©2006 Diskeeper Corporation. All Rights Reserved. Undelete, Diskeeper and the Diskeeper Corporation logo are registered trademarks or trademarks of Diskeeper Corporation in the United States and/or other countries. Microsoft, Windows and PowerPoint are either registered trademarks or trademarks owned by Microsoft Corporation in the United States and/or other countries. Diskeeper Corporation • 7590 N. Glenoaks Blvd. Burbank, CA 91504 • 800-829-6468 • www.undelete.com

Physical Infrastructure

Solutions Start At
$245

Room Alert 24E

Protect Your IT Equipment...*Don't Wait Until It's Too Late!*

- Digital Temperature, Digital Humidity, Main / Digital Power
- Flood, Smoke, Sound, Light, Entry, Air Flow, Cameras, Dry Contacts, Switch Sensors, and more
- Alerting, Automatic Corrective Action, Logging, and more
- Web Interface, Ethernet, SNMP, Wireless, and more

AVTECH Software

Avtech Software
(401) 847-6700
www.avtech.com

Physical Infrastructure

4 Post 19" Relay Rack

- Vertical Mounting Space: 12U, 26U, 42U
- Offered in 3 Depths: 24", 30", 36" Deep
- 4 Heavy-Duty Steel Uprights
- 4 Gliders
- Ships Knock-Down
- Easy to Assemble

hergo TECHNICAL WORKSPACE SOLUTIONS

Hergo
(888) 222-7270
www.hergo.com

Physical Infrastructure

Technical Furniture

- 72"H x 30"W frame and leg assembly on flat levelers
- (2) 30"W x 18.5"D mounting shelves
- 30"W x 25"D leg mounted
- Set of 19" rackmount brackets—3.5"H x 12"D
- (2) 30"W horizontal aluminum tracks for mounting of flat panel monitor, keyboard, and mouse tray
- Power/cable management
- Optional locking and non-locking casters

hergo TECHNICAL WORKSPACE SOLUTIONS

Hergo
(888) 222-7270
www.hergo.com

Physical Infrastructure

Rackmount Enclosure Cabinet

- 19" Enclosure
- 42 U x 36" Deep
- 4 Mounting Rails
- Front and Rear Lockable Doors, choice of Solid, Tempered Glass, or Perforated
- 2 Removable and Lockable Side Panels
- 4 Dual Wheels

On sale and ready to go!

hergo TECHNICAL WORKSPACE SOLUTIONS

Hergo
(888) 222-7270
www.hergo.com

Physical Infrastructure

Classic Series - Portable Air Conditioning

Ideal For:
- Server Rooms
- Electronic Equipment
- Primary, Supplemental, or Emergency Cooling

Featuring:
- Rentals and Sales
- Installs in Minutes
- Locations Nationwide

MOVINCOOL PREFERRED DISTRIBUTOR
MovinCool, SpotCool and Office Pro are registered trademarks of DENSO Corporation.

Atlas Sales & Rentals, Inc.
THE PORTABLE COOLING & HEATING SPECIALISTS

Atlas Sales & Rentals Inc.
(800) 972-6600
www.atlassales.com

Physical Infrastructure

$1,900
New Product!

Rackmount LCD Drawer With KVM Over IP

i-Tech SuperStore for Rackmount LCD Console Drawer

- 15", 17", 19", and 20" is also available
- Optional with 8/16 ports KVM
- New integrated with Remote Access via CAT5 and via IP
- New SUN Solaris Rackmount Keyboard

Free ground shipping for all rackmount LCD KVM drawers

i-TECH COMPANY RACKMOUNT SOLUTION

i-Tech Company
(888) 483-2418
www.i-techcompany.com

Physical Infrastructure

M Series Power Distribution Units

A Cyber Breaker on each outlet (M820C *Plus*) • Monitor current on each outlet (M 820C) • Schedule outlets on/off • SNMP management • Login/password security • Event logging • Give outlets descriptive names • Programmable stagger on/off times • Intuitive user interface

CYBER SWITCHING®

Cyber Switching Inc.
(408) 436-9830
www.cyberswitching.com

Physical Infrastructure

RPC 22

24 Receptacle Remote Power Monitoring & Distribution

- Current, Voltage, Power, and Temp Monitoring
- LCD Screen Display
- RS232 Interface 120/208VAC 10,20,30A Models
- Power Distribution and Monitoring In One Unit

BayTech

BayTech
(800) 523-2702
www.baytech.net

Physical Infrastructure

RPC 14

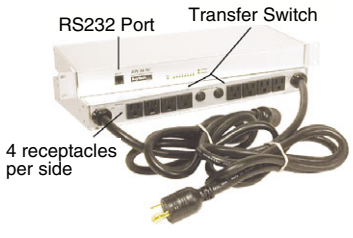
8 Receptacle Power Control and Monitoring

- Current, Voltage, Power, and Temp Monitoring
- LCD Screen displays power monitoring information
- RS232 interface, 120/208VAC 10,20,30A Models
- Turn On, Off, or Reboot any or All Receptacles

BayTech

BayTech
(800) 523-2702
www.baytech.net

Physical Infrastructure



RPC18

8 Receptacle Power Control / Monitoring w/Trans Switch

- Current, Voltage, Power, and Temp Monitoring
- Automatic Transfer Switch
- RS232 or Network Interface 120/208VAC 10, 20, 30A Models
- Turn On, Off, or Reboot any or All Receptacles

BayTech

BayTech
(800) 523-2702
www.baytech.net

Physical Infrastructure

Seismic NEBS Zone 4 Server Rack

Certified to Seismic Zone 4

Based on the standard, patented frame design of our RS, RSP and FRS server rack series, this NEBS-compliant configuration has been tested and certified to meet Telcordia (Bellcore) GR-63-CORE requirements for ZONE 4 seismic earthquake environments.

GSA #GS-35F-0208R

RACKMOUNT SOLUTIONS, LTD
where customer service matters

Rackmount Solutions Ltd.
(866) 207-6631
www.rackmountsolutions.net

Physical Infrastructure

Air Conditioned Server Cabinet

- From 1,800 to 10,000 BTU
- Rackmount and Sidemount
- Three sets of L-shaped universal vertical rails
- Base, casters, and leveling feet standard
- Removable side panels
- Lexan front door (or solid steel) w/ lockable handle
- Steel rear door with lockable swing door handle
- Avail. in heights of 24u, 30u, 35u, 40u, 42u, 44u, 48u; depths of 24", 30", 36" and 42"; widths of 19", 23" & 24"

RACKMOUNT SOLUTIONS, LTD
where customer service matters

Rackmount Solutions Ltd.
(866) 207-6631
www.rackmountsolutions.net

PHYSICAL INFRASTRUCTURE

NETWORK Series Network Rack

- Need a COMM rack with the rack rails moved to one side to accommodate large cable bundles?
- You have the option to slide your vertical rack rails horizontally as well as vertically. Set your rackmount width to 19 or 23 inches. Talk about versatility!
- Slide the rack rails to one side of the cabinet, allowing for additional 4 to 9 inches. of space on the opposite side to run large cable bundles.

RACKMOUNT SOLUTIONS, LTD
where customer service matters

Rackmount Solutions Ltd.
(866) 207-6631
www.rackmountsolutions.net

PHYSICAL INFRASTRUCTURE

Sound-Dampening Quiet Server Rack

- This sound-dampening server rack is designed for applications that require a quieter environment than the average server room
- Two sets of "L"-shaped adjustable universal mounting rails on a patented aluminum extruded welded frame
- Side panels with full sound foam sheet; foam sealing tape between panels and frame
- Vented front door

RACKMOUNT SOLUTIONS, LTD
where customer service matters

Rackmount Solutions Ltd.
(866) 207-6631
www.rackmountsolutions.net

PHYSICAL INFRASTRUCTURE

Meets any price!

CoolCube 10

RACK IT - STACK IT - MOUNT IT - HANG IT

Tired of Overheated Server Rooms? The CoolCube 10 Offers an Exceptional Cooling Solution for Electronics

- 50% smaller than competitors, provides 10,000 btu/hr
- Installs into any 2- or 4-post 19" rack or is portable in room
- Automatic restart function for power outages
- Cost-effective for after-hours and weekend cooling
- Uses standard 115 VAC power source

RACKMOUNT SOLUTIONS, LTD
where customer service matters

Rackmount Solutions Ltd.
(866) 207-6631
www.rackmountsolutions.net

PHYSICAL INFRASTRUCTURE

Modular 3-Phase Power Distribution

Designed to take a 3-Phase in-feed and distribute single phase power via Basic CDUs that can be placed anywhere in the cabinet. Each Basic CDU has an associated LED meter for simple load balancing. The Master unit contains the LED meters, temperature/humidity probe input, serial connection, IP connection, and exclusive link port to connect an expansion CDU for linking together CDUs on different power circuits.

Server Technology, Inc.

Server Technology Inc.
(800) 835-1515
www.servertech.com

PHYSICAL INFRASTRUCTURE

Switched CDU CW-24V2

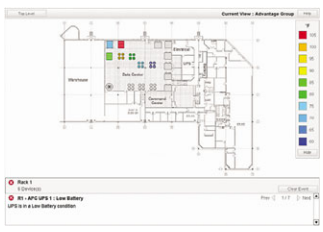
Power cycle individual or groups of outlets to remotely reboot network devices.

- 208V to 240V Single or 3-Phase power at 20 or 30A
- Access and Security: Web interface, SSL, SSH, Telnet, SNMP, LDAP, TACACS+, and RS-232 access
- Environmental Monitoring
- Fuse Retractor
- High-Density 24 IEC C13

Server Technology, Inc.

Server Technology Inc.
(800) 835-1515
www.servertech.com

PHYSICAL INFRASTRUCTURE



Enterprise View CDU Manager

- Remote management of STI Sentry PDUs over IP
- View your entire system from Global View down to the rack level
- Centralized event logging with extensive logs and reports
- Thermographic mapping shows a visual depiction of hot spots in your data center

Server Technology, Inc.

Server Technology Inc.
(800) 835-1515
www.servertech.com

PHYSICAL INFRASTRUCTURE

Sentry 30-A Fail-Safe Transfer Switch

- Provides fail-safe redundant power to single-power corded equipment
- Fast Transfer Rate—Power interruption will not affect equipment uptime or performance
- Patented arc-suppression and power in-feed sharing technology extend product life and performance
- High Density—100 to 240V and 16/32A

Server Technology, Inc.

Server Technology Inc.
(800) 835-1515
www.servertech.com

PHYSICAL INFRASTRUCTURE

Dual Slide LCD Drawer-Modular KVM Switch

Minimize inventory and maximize upgrade using detachable KVM switch console

- Supports up to 16 ports/ USB or PS/2
- Supports up to 32 ports/ CAT5
- Plug n Play upgrade cableless attachment
- 15/17/19/20.1" LCD screen
- Sun keyboard
- 17 various intl keyboards
- OSD function for LCD display
- Panel protected by tempered glass

BROADRACK

Broadrack
(714) 444-2390
www.broadrack.com

STORAGE

Call for Price

AccuNAS AN208L NAS + iSCSI Rackmount

- Unified Storage: supports iSCSI IP SAN and NAS
- Expandable to External SCSI or Fibre Channel storage
- 2.8GHz Pentium D CPU or above with 1GB DDR2 Memory, upgradeable to 8GB maximum
- 8-Bay SATA II Hot-Swappable, up to 8TB storage capacity
- NAS-to-NAS Mirroring with Automatic Failover
- Built-in Hardware RAID-0, 1, 5, 6, 10, plus HotSpare

SANS DIGITAL® www.sansdigital.com

Sans Digital
(562) 949-1988
www.iscsinas.com

STORAGE

EnhanceRAID R4 Series

1U 4-Bay Multi I/O RAID/JBOD Storage

EnhanceRAID™ R4 RAID embedded or HBA dependent storage system with 4+ hot-swappable HDD trays

RAID Configuration	JBOD Configuration
• U320 SCSI	• Multi-lane SATA/SAS
• GbE iSCSI	• Port Multiplier
• Firewire/USB	• eSATA

ENHANCE TECHNOLOGY, INC.
Where Storage Begins

Enhance Technology, INC.
(562) 777-3488
www.enhance-tech.com

NETWORKING & VPN

Prices starting at
$1,499
with no per-port or per-server license fees.

Barracuda Load Balancer

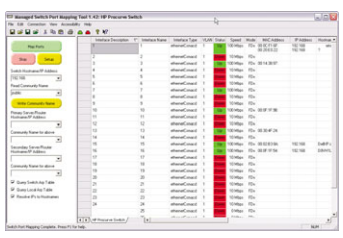
The Barracuda Load Balancer integrates server load balancing and network intrusion prevention into an affordable and easy-to-use network appliance. Ideal for data centers with:

- Internet sites with high traffic requirements
- Hosted applications using thin-client architectures
- Other IP services requiring optimal performance

BARRACUDA NETWORKS

Barracuda Networks Inc.
(888) 268-4772
www.barracuda.com

NETWORKING & VPN



Managed Switch Port Mapping Tool

Windows software tool that communicates with a managed ethernet switch via SNMPv1/v2c and maps the physical port connections to MAC and IP addresses of the attached devices.

NorthWest Performance Software, Inc.

NorthWest Performance Software Inc.
(866) 882-3389
www.nwpsw.com

Networking & VPN

DS1M12 Stingray Multi-Function Instrument

Powered from USB, Stingray needs no external power supply. Stingray combines the functions of Oscilloscope, Data Logger, Spectrum Analyser, Volt Meter, Frequency Meter, and Signal Generator in a single instrument. Stingray features simultaneous 12-bit sampling on both channels, a native sampling rate of 1MS/s (20MS/s repetitive signals), and sophisticated hardware triggering, including delayed time base pulse width.

EasySync™

EasySync
(503) 547-0909
www.easysync-ltd.com

Security

$375
2nd Unit - 50% OFF

Cisco PIX® 501 60Mbps Firewall

The PIX 501 includes: 4-port Fast Ethernet (10/100) switch and a Fast Ethernet (10/100) interface. High-speed broadband environment security. The Cisco PIX 501 delivers up to Triple Data Encryption Standard (3DES) and 4.5 Mbps of Advanced Encryption Standard-128 (AES) throughput.

- 1 Year Warranty
- Licensed for 10 IKE peers instead of factory to user
- 100% Money Back Performance Guarantee

RWU INTERNATIONAL COMPUTERS, INC.

RWU International Computers Inc.
(800) 679-4685
www.rwuinternational.com

Clients

500W+500W Redundant Power Supply

- Dual AC INPUT design
- Hot-swappable/hot-pluggable redundancy function
- Load sharing design for smart stress and heat distribution
- Hold up time: 16ms at max load and normal input voltage
- Over power, voltage, and short circuit protection
- Strong power signal and cooling fan

TC-iStar www.tc-istar.com

TC-iStar
(888) 696-3962
www.tc-istar.com

Services

PoS Sales & Maintenance

PoS (Point-of-Sale) Barcoding / Scanners / Barcode Printers

Sales & Maintenance

- Quality Service
- Experienced Technicians
- Fast Return
- Servicing Major Brands

Symbol • Intermec • Zebra
Metrologic • Cisco Access Pts.

Call Us Today!

Pegasus Computer Marketing, Inc.

Pegasus Computer Marketing Inc.
(800) 856-2111
www.pegasuscomputer.net

WE BUY AND SELL

VECMAR Computer Solutions

hp NCR OKI PRINTRONIX TallyGenicom WYSE

NCR and HP Servers, Systems, Parts and Upgrades

New and Refurbished OKI, TallyGenicom and Printronix Printers

New and Refurbished WyseThin Clients and General Purpose Terminals

Call Toll-free 800.457.8499

dbg Digital Brothers Group
DEC-Compaq-Cisco-Sun-SGI

770-931-7732
Fax 770-931-9416
www.dbgweb.com
salesp@dbgweb.com

AlphaServer GS160 Model 16

Base System for OpenVMS

- DY-160CG-AA
- One Alpha 21264 Processor 1224 MHz
- Four Quad Building Blocks
- One 14-Slot PCI Shelf
- OpenVMS Operating System License

ALSO AVAILABLE:

- Additional 1224 MHz CPU w/SMP
- Additional Memory
- Additional PCI Shelves
- Additional PCI Options

Call or E-Mail For Pricing

2 Systems In Stock!

Authorized COMPAQ® Reseller

WE WILL BUY YOUR USED HARDWARE!

OPINIONS
DATA • DEVELOPMENTS

Are You Looking Forward To Orcas?

I recently downloaded and installed Visual Studio 2008 (Orcas) Beta 2. You probably should do the same if you want to get a feel for the next version of Microsoft's developer tools suite.

Warning: Don't install this or any pre-release software on a system that cannot be reformatted. While the Orcas beta can run alongside the existing Visual Studio versions, I don't recommend this approach—again, unless you're running on a virtual PC.

The 80 Or The 20

As you probably know, I provide support for a broad spectrum of developers at a wide range of companies. I have begun to break down the developer community using an "80/20" rule: 80% of the developers work for smaller companies or departments within larger companies. These developers working in smaller, less disciplined teams often act as architect, designer, coder, and database designer and administrator (in addition to their duties as team-lead and janitor).

The 20% work for companies that tend to need far more structured team-development disciplines. They are also more specialized in that the ADO.NET developer would not typically have DBA access to the database. Sure, these numbers are approximate and fairly subjective. Remember that a considerable number of developers come from a less-sophisticated (in today's terms) VB6, Access, and other nontraditional developer roles that populate companies all over the world.

What's Coming In 2008 Or Later?

It's a bit late to provide feedback for the Orcas release; Microsoft stopped making substantive changes some time ago. However, it's never too early to start lobbying for the next version that might appear as early as 2010. In the Beta 2 release, Microsoft has made some subtle changes to a number of some of the more complex aspects of the languages and has finalized a number of very flashy features.

As I see it, Microsoft has built considerable functionality into Orcas for 20% of the developers—those who need and can leverage more sophisticated language features. Have they left 80% of the developers without new features? Not really; some of the features are those that the "ordinary" developer in the 80% crowd can also leverage to make his code and projects more productive.

Language Integrated Query (aka LINQ): Extends the C# and Visual Basic .NET languages to access new ADO.NET 3.5 functionality (which is not accessible via traditional Framework calls). This technology permits developers to use language-specific syntax to manipulate data using object-oriented structures. This can help developers manipulate data post-query. That is, suppose you extract data from a data source and want to execute a logical client-side JOIN on a local array. Before LINQ, a SQL JOIN required a server-side query engine.

Visual Studio IntelliSense: This exposes selected enumerations and constructors and has been improved to make the enumerations translucent if you click CTRL. This is a feature that I requested (along with a number of other reviewers) at a software design review about two years ago. What hasn't been fixed here is hiding the constructors; this might come later.

TableAdapterManager: This new class, generated by the Orcas TableAdapter code generator, is designed to further address the hierarchical update issues left undone by the Visual Studio 2005 TableAdapter configuration wizard. While this feature does not completely address all of the issues, it does permit developers to simply execute a single UpdateAll method to walk updates through a hierarchical parent/child relationship tree.

Synchronization Services: IMHO, this is one of the most useful features we've seen come out of the DataWorks team. It lets developers fetch data and let ADO.NET 3.5 manage synchronization with a far simpler and more inclusive set of data sources. This means you'll be able to sync client-side data structures with server-side databases without needing SQL Server. This technology leverages the newly integrated SQL Server Compact edition and the new DataCache control (and designer in Visual Studio).

I would mention the Entity Framework, but that's been held back. Again, this is a feature that will be attractive to shops that need to leverage object-oriented data mapping and code generation far more sophisticated than anything Visual Studio implements in the current version.

The pundits and developers I've spoken to since Visual Studio 2005 was finalized have expressed a common view, one that I share. Yes, some of them wanted more features, but 80% wanted Microsoft to simply finish, polish, and tune Visual Studio 2005—flesh out some of the code generators and finish ADO.NET to better map the functionality left behind in ADO classic. A few of these issues have been addressed, but IMHO, too many of these goals have been left on the cutting room floor. P

Send your comments to bill@processor.com

WILLIAM (BILL) VAUGHN

AUTHOR

William (Bill) Vaughn is an industry-recognized author, mentor, trainer, and subject-matter expert on Visual Studio, SQL Server, and ADO.NET. He's worked in the computer industry for over 30 years, including 14 years at Microsoft. He's written seven editions of the "Hitchhiker's Guide to Visual Basic and SQL Server" and three editions of "ADO.NET and ADO Examples and Best Practices." Vaughn and Peter Blackburn also wrote the best-selling "Hitchhiker's Guide to SQL Server 2000 Reporting Services." Visit his Web site at www.betav.com.

360 Technologies HP Sales and Rentals
Toll Free: 888-883-0360
HEWLETT PACKARD Channel Partner

BUY • SELL • RENT • LEASE • REPAIR

• SPECIALS •

C6751A	OfficeJet K80XI	$85	Q1273A	DesignJet 4000 42"	$8,995
C8392A	7110XI AIO	$145	C1316A	9100C Digital Sender	$1,195
C9660A	LaserJet 4600	$750	Q5916A	9200C Digital Sender	$1,975
C6075B	DesignJet 1550CM+ 36"	$6,995	C6074B	DesignJet 1050C+ 36"	$5,495

Color LaserJets

C3985A	LaserJet 8500DN	$1,895
C4089A	LaserJet 8000DN	$495
C9661A	LaserJet 4600DN	$750
C9795A	LaserJet 2500L	$345
C7086A	LaserJet 4550N	$545
C7087A	LaserJet 4550DN	$650
C7098A	LaserJet 8550DN	$1,495
C7131A	LaserJet 5500N	$2,350
C8546A	LaserJet 9500N	$4,750
C8547A	LaserJet 9500HDN	$5,500
C9658A	LaserJet 5500DTN	$2,495
C9659A	LaserJet 5500HDN	$2,795
Q1320A	LaserJet 3500N	$695
Q1323A	LaserJet 3700N	$1,295
Q2488A	LaserJet 1500L	$395
Q3670A	LaserJet 4650DN	$2,095
Q3702A	LaserJet 2550L	$275
Q3716A	LaserJet 5550DTN	$3,375

Plotters

C4709A	DesignJet 750C+ 36"	$1,895
C3198B	DesignJet 755CM 36"	$2,095
C7789C	DesignJet 800PS 42"	$4,795
C6075A	DesignJet 1055CM 36"	$4,995
C4703A	DesignJet 2000CP 36"	$1,995
C6019A	DesignJet 5000PS 42"	$5,295
Q1254V	DesignJet 5500PS 60"	$11,995
Q1274V	DesignJet 4000PS 42"	$10,995

Call for all New and Used HP Equipment!

LaserJets

C2001A	LaserJet4	$175
C2037A	LaserJet 4+	$195
C2039A	LaserJet 4M+	$325
C3166A	LaserJet 5SI	$495
C3167A	LaserJet 5SI MX	$495
C3916A	LaserJet 5	$250
C3917A	LaserJet 5M	$295
C4110A	LaserJet 5000	$695
C4118A	LaserJet 4000	$295
C4120A	LaserJet 4000N	$325
C4252A	LaserJet 4050T	$395
C4254A	LaserJet 4050TN	$445
C4265A	LaserJet 8150	$595
C4266A	LaserJet 8150N	$595
C4267A	LaserJet 8150DN	$795
C8049A	LaserJet 4100	$495
C8050A	LaserJet 4100N	$595
C8051A	LaserJet 4100TN	$695
C8052A	LaserJet 4100DTN	$895
C8521A	LaserJet 9000DN	$2,795
C8253A	LaserJet 9000MFP	$4,795
C9124A	LaserJet 3300MFP	$325
C9148A	LaserJet 4100MFP	$1,295
Q1860A	LaserJet 5100	$895
Q1861A	LaserJet 5100TN	$1,095
Q2425A	LaserJet 4200	$695
Q2426A	LaserJet 4200N	$795
Q2428A	LaserJet 4200DTN	$1,295
Q2432A	LaserJet 4300N	$1,095
Q3723A	LaserJet 9050DN	$2,995
Q3942A	LaserJet 4345MFP	$2,250

• All above equipment is refurbished and carries a 90-day parts & labor warranty.
• Visa, MasterCard & American Express accepted.
• Many orders shipped the same day!

360 Technologies Inc.
15401 Debba Drive Austin, TX 78734
www.360tech.com
Info@360tech.com

Toll Free: 888-883-0360 Tel: 512-266-7360 Fax: 512-266-7366 IM: HPat360

Save Yourself Time

When you post a free **Want-To-Buy** or **For-Sale Listing** at *Processor.com*, you save more than time. Hundreds of the nation's leading computer dealers will see your posting and let you know if they have the equipment you are looking for.

PROCESSOR.COM®

PRODUCT OF THE WEEK

Storage Versatility With The StoreVault S500

Filling The Network Storage Gap For SMEs

by Seth Colaner

• • •

UNTIL AS RECENTLY as 18 months ago, most small to midsized enterprises had few reliable options for network storage. Enterprise-class storage was out of reach financially and simply unmanageable with the forces they could maintain. As a result, their options were more or less limited to DAS devices or low-cost NAS applications.

As the cost of SAN technology has worked its way down and NAS has become more integrated, a need has emerged for network storage that employs a variety of options, is to a certain degree scalable, and is inexpensive. This market space is peopled by SMEs.

According to John Sloan, analyst with Info-Tech, the research it had conducted indicated that SMEs were looking for three critical factors in network storage capability. First, "It had to be inexpensive. Small businesses don't have a lot of money to invest in storage, particularly the management of storage." Ease of use was the second consideration; hiring a storage manager was not feasible for many businesses. Sloan continues, "The third thing was that it had to play well within a classic Windows x86 environment because that's where a lot of the 'stuff' is." StoreVault (www.storevault.com) has aimed squarely for this market.

The StoreVault S500

StoreVault, a division of NetApp (www.netapp.com), has produced its solution to this market demand with the StoreVault S500, a data storage solution that is designed to meet the needs of SMEs.

"I want [SMEs] to know that this is the platform that they can depend on to provide them storage for now and for the next three to five years, depending on growth," says StoreVault Product Marketing Manager Drew Meyer. The StoreVault S500 is scalable from 1 to 6TB, supports a variety of network storage types, and in general is designed with options to meet any foreseeable storage need or contingency while limiting time spent having to manage data.

One of the strengths of the S500 is the variety of network storage types it can support simultaneously. The NAS options are conventional enough, but a surprise to many users may be the S500's SAN protocol support: The device features both Fibre Channel and iSCSI.

The S500 is designed to meet unpredictable needs. If companies need to add storage capacity, do disk-based backup and restore immediately, or conduct offsite replication, the S500 can handle it. Says Meyer, "No matter what new surprise need gets thrown at [SMEs], they'll be able to respond gracefully and handle that with a StoreVault." The device can even tolerate two drive failures at the same time, which, according to Meyer, no other product in the SME network storage market can do.

The StoreVault S500 is also relatively easy to use; indeed, ease of use was a primary focus of the S500's design. Storage needs to happen for data backup, applications, when a company grows, or when a disaster strikes. Limiting the amount of time a company has to spend managing storage saves money. Meyer states that the S500's all-in-one capabilities facilitate time-saving and therefore a competitive edge. "Moving to one product reduces the amount of time you spend with storage, which frees you up to do other things that will eventually keep you more competitive vs. your competitor, who's still running around trying to deal with individual storage."

One Of These Is Not Like The Others

What differentiates the StoreVault S500 from its competitors? In a nutshell, the ability to perform multiple functions with a single device—NAS, SAN, Unix networks, etc.—makes this product unique among its peers.

Additionally, many smaller businesses are more familiar with NAS technology than they are with SAN, so having them both in one package is appealing; it enables users to become familiar with new technology while being able to use the device right away. StoreVault hopes this integration will keep growing companies working with products from StoreVault's parent company, NetApp. "If your business grows, you can start buying additional NetApp products now that you're familiar with the technology," says Meyer.

Competitors of the StoreVault S500 include Microsoft Windows-based products that run on Windows Storage Server. Open-source products also compete for elbow room in the marketplace, though not as much as the Windows-based platforms.

Still, Meyer contends that, in a sense, ignorance is StoreVault's main competition. "Most people don't understand that network storage makes more sense than direct-attached storage. Instead of buying storage for every computer and every application, you should buy storage in one 'bucket,' then share that 'bucket' amongst multiple things." He points out that working from one place rather than multiple places is easier and more flexible.

What's Next?

StoreVault is looking to one of the biggest current trends in the SME network storage market, virtualization, to potentially increase its services. Meyer feels that StoreVault and virtualization would make ideal partners as its products store all the data for virtual servers. Meyer is also aware that the network storage needs of businesses sized smaller than SMEs are an area that StoreVault can address in the future.

The StoreVault S500 provides a solution to network storage for SMEs by offering multiple functions in a single device with technology that has been proven in the enterprise environment. If a business needs to scale beyond the 6TB that the S500 offers, the good news is that it can move on to NetApp products, which are based on the same technology, so the learning curve is essentially nil. P

StoreVault S500

Description: The StoreVault S500 is a network storage device that serves small to medium-sized enterprises by providing advanced and varied storage options previously attainable only by large businesses.

Interesting fact: The StoreVault S500 is capable of managing network storage with both SAN and NAS via Fibre Channel and iSCSI.

(877) 278-7858
www.storevault.com

StoreVault S500 Specs At A Glance

Software Specifications	
Operating System	Network Appliance Data ONTAP StoreVault Edition
Standard Software Features	Simultaneous NAS and SAN support, online capacity expansion, up to 255 snapshots per volume, email alerts, DNS, NDMP, FlexVol thin provisioning
Security Integration	Unix NIS, Macintosh NIS, Windows Active Directory, and Windows Workgroup (local) integration
NAS Protocol Support	NFS V2/V3/V4 over UDP or TCP, NFS client authentication, Microsoft CIFS
SAN Protocol Support	Fibre Channel and iSCSI up to 64 LUNs

PRINTRONIX®
QMS®
New & Refurbished
PRINTERS
SPARE PARTS • EXCHANGES • SUPPLIES
TW-AX • CO-AX • IGP™
QMS® Magnum®
Data Reliance Corporation
"Your Reliable Printer Source"
www.datareliance.com
Ph: 574-935-9550 Fx: 574-935-9555

E.L.I.
Call for a Quote Today!
• Quick Shipping
• In-house Technical Staff
• International Shipping
Phone 800-447-1156
617-547-4005
Fax 617-354-1417
E-mail sales@eli.com
288 Norfolk Street
Cambridge, MA 02139
For our complete online catalog go to www.eli.com
SUN MICROSYSTEMS
Sun Fire
Sun Blade
StorEdge
3310/3510 Array
Sparcs
CPUs
Drives
Memory
Entry/Midrange Servers
DEC/HP
Alpha
DecServers
Comm. Gear
VAX
Memory/Disks
CISCO
Routers
Catalyst Series Switches
Network Modules
Pix Firewalls
Port Adapters
VPN+ Security Product

WE BUY ALL NORTEL
NORTEL
We also buy Cisco, Juniper, 3Com, and Foundry
Phone: (800) 503-1349
sales@networkrs.com
NRS

PRODUCTS AT WORK

SmartFilter Simplifies Filtering The Web

Secure Computing Helps Admins Keep Tabs On Web Site Content

by John Brandon

• • •

FILTERING OUT INAPPROPRIATE sites on the Internet is one of those activates that either works well and you barely notice or doesn't work and causes major headaches. For the Milton Town School District—where 1,800 students in Milton, Vt., use about 800 computers daily in the elementary, junior high, and high school—filtering is seamless and hardly noticeable. The school uses Secure Computing's (www.securecomputing.com) SmartFilter technology, which runs alongside Microsoft ISA Server (www.microsoft.com) and allows system administrator Fred Wadlington to assign filtering for specific users and groups.

Wadlington says the fine control over filtering levels—which provides a way to select from 91 categories such as gambling, gaming, pornography, and violence—and the fact that the system works exactly as advertised have been major benefits to the school district, which has a limited number of staff people and would not have the time to make constant changes to the software and improve the reliability. The category-level control over specific groups is a key feature for Wadlington, as well.

"What one person deems inappropriate for one age level might be OK for another," says Wadlington. "For example, a high school student might be doing a report on guns and violence and needs to research news stories, while an elementary-age child would never need access to those sites. SmartFilter allows me to assign filtering based on those groups. You can then run a report that shows you the browsing habits and whether they meet school policies."

In addition, Wadlington says he is on a listserv that reports potentially harmful sites to be aware of; by the time he checks the filter database in SmartFilter, he has always found that the new site is listed and working. SmartFilter blocks about 20 million inappropriate sites.

Filtering For Compliance

For most school districts, the No. 1 motivation for installing filters has to do with federal mandates over Internet usage in schools. While teachers could adequately police each computer on the network or install client filtering programs locally, Wadlington explains that the mandates call for much stricter policy enforcement in order to qualify for government E-Rate funding (www.fcc.gov/learnnet) and that any localized effort would not allow school administrators to have across-the-board control over blocking inappropriate sites.

The fine control over filtering levels—which provides a way to select from 91 categories—and the fact that the system works exactly as advertised have been major benefits to the school district.

"The filtering has many benefits other than compliance," says Wadlington. "Years ago, many school districts were not filtering at all, but then we started seeing high-speed Internet connections become more common. We wanted to protect our students from sites that have no academic value. You can also use the reporting features to get a lot of information about the sites students visit and see browsing habits."

Wadlington chose to upgrade to the latest version of SmartFilter after hearing about other schools using it. (The school district had been using a previous version of the same product before Secure Computing acquired the legacy product.) "It's a little more expensive, but it allows a tremendous degree of flexibility and a high degree of effectiveness," he says.

Product Implementation

Implementing the product with Microsoft ISA Server was a streamlined process, says Wadlington. One key advantage, he says, is that SmartFilter works as a conduit for all traffic in the schools. If a student tries to access an inappropriate site, a "blocked site" message will appear. Students can contest the blocked site by sending a review request, which goes directly to Wadlington. He reviews the site to see if it was blocked incorrectly and can change the status himself, without having to report the error through the support channels.

Asked whether he has had any inappropriate sites sneak through, Wadlington says he does not know of that happening, but he says with the number of new sites popping up all the time on the Internet, it is remotely possible. SmartFilter uses a site database of blocked sites to control access, which is a more effective method than keyword blocking. Site owners often hide inappropriate content in subfolders of a site tree structure and use innocuous names to fool keyword filtering systems. Wadlington uses a more broad method of blocking sites: If school policy prohibits students from visiting a gaming site, he will block any site that includes gaming information, such as IGN.com, even if there are other sections which might provide some educational value. SmartFilter has an extensive number of categories from which to pick.

Ongoing Support & Maintenance

Wadlington notes that the ongoing support for SmartFilter is minimal; it usually involves an occasional review request to see if a site should be blocked. The school district pays an annual subscription for SmartFilter based on the number of network nodes. "That's one thing I would change," he says, jokingly, referring to the subscription fees and explaining that an annual renewal is common for most IT applications that monitor networks.

Asked whether the school district has had any problems with Web 2.0 sites, which sometimes use Java or other scripting languages and programming techniques to install software or display pop-up banners that sometimes bypass even the most powerful filters, Wadlington says the school has not had any problems.

In terms of the reporting features, Wadlington says he has not used those features as much as he would like but plans to explore those options more. "Sometimes an administrator or teacher will ask us to check sites a student has gone to, and we go into the reporting and pull up all the sites that the student has accessed, or sites the student has tried to access which have been blocked, and present the administrator or teacher with browsing history using the reporting function. It allows us to do that capability, but I have not utilized it yet."

"To sum it all up, SmartFilter has proven to be an effective filter for us—one that I have not had to spend a lot of time tweaking," Wadlington says. "It allows the flexibility to review blocked sites; it blocks new sites that it has caught fairly easily. We have not had to spend a lot of time dealing with the subject area of filter, which helps with our limited staff here." P

Secure Computing SmartFilter

Filters all Internet traffic on the company server for inappropriate sites

"SmartFilter has proven to be an effective filter for us—one that I have not had to spend a lot of time tweaking," says Fred Wadlington from the Milton Town School District in Milton, Vt.

(800) 692-5625
www.securecomputing.com

PROCESSOR®

Subscribe Today!
Call (800) 819-9014
or
Subscribe Online!
Go to www.Processor.com

Help In A Complex IT World

IT Service Providers Aren't Just For Large Enterprises

by Darrell Dunn

• • •

THE GROWING COMPLEXITY of managing IT networks and operating data centers is not an issue solely troubling large enterprises. Small and medium-sized enterprises are also increasingly challenged to provide business-critical functionality with limited staffs and budgets.

For a growing number of smaller enterprises, the answer to managing those increasingly complex challenges is to turn to outside service providers for IT support. While traditional third-party IT providers have more often than not concentrated their efforts and technology on serving large businesses, a growing number of organizations are focusing their efforts on helping SMEs.

Spotlight On Service Providers

eStar Technologies
Founded: 1982
Headquarters: Arlington, Texas
Provider of customized Web-based solutions for N Tier-based architectures
www.estartechnologies.com

Reliable Resources
Founded: 2002
Headquarters: Minnetonka, Minn.
Provider of data center planning, design, consulting, and engineering
www.relres.com

Sinu
Founded: 1999
Headquarters: New York City
Provider of "IT as a service" for small to medium-sized enterprises
www.sinu.com

Services Market Growth

The demand for technology to drive new and key operations and business initiatives has led to growth in the IT services market. Gartner estimates the worldwide IT services market will total almost $731 billion in 2007 and grow to nearly $958 billion in 2011.

"Many businesses are attempting to access and implement areas of technology in which they've often previously had little or no experience," says James Staten, an analyst with Forrester Research. "Use of service providers is a fairly easy choice that a growing business can use to get a different set of eyes on their situation and hopefully create some significant improvements on their current IT operations."

IT requirements for smaller companies can be quite different from large enterprise organizations. Tools to meet those needs may have to be tailored to achieve specific objectives rather than providing an all-encompassing IT umbrella support that may be too expensive or complex for smaller companies needing more targeted and limited assistance.

Outside Resources

Some smaller businesses may not be aware of the range of consulting and operational service that is available through equipment and software vendors with which they are already engaged. Calling upon outside resources to improve use of their IT resources can not only make financial sense but also signal a change in the technology maturity level of an organization.

"There has been a mindset within many small businesses that they have only two options for IT support: hire someone full-time or hire a consultancy," says David Owen, a principle at Sinu, a provider of outsourced IT services focused on SMEs. "There is really not an awareness of other options. We believe we are at the cutting edge of providing IT as a service, in much the same way that Salesforce.com has made software as a service very popular."

Rather than continue to "cobble together" various pieces of technology, the growing company can look to service providers that can help ensure the correct technology is being used and that maintenance and monitoring of the related equipment is done properly.

Sinu considers itself a managed service provider supplying a subscription-based platform to meet core technology requirements, including email, antivirus and malware protection, automated backup, full-time monitoring of the system with documentation, and unlimited support for a flat monthly fee.

"A 20-person organization can hire us for roughly half of what it would cost to hire one midlevel IT person for an internal staff," Owen says.

Various SME Needs

Mary Phillips, president of eStar Technologies, a provider of custom IT development for Web-based applications running on an N Tier architecture, says businesses are turning to her company for services ranging from short-term augmentation of internal IT staffs to a completely outsourced IT organization.

Businesses are looking to eStar due to the challenges associated with implementing an N Tier architecture. Even once implemented, a business can benefit from consulting on operation and maintenance. Companies with limited IT staffs, or staffs already committed to other projects, use eStar to completely run and manage the deployment.

"We are finding our customers have two things in common," Phillips says. "They are using their Web site for marketing, and therefore [they] want to move to having a more dynamic, robust, and interactive site, including customer and vendor portals. We specialize in doing turnkey solutions in a very rapid period of time."

A small and growing company's IT staff can be overburdened, making it difficult to form and maintain implementation teams that can concentrate on specific projects. Those businesses can use IT service providers to target specific new technology efforts, while leaving the internal staff for day-to-day IT requirements.

While traditional third-party IT providers have more often than not concentrated their efforts and technology on serving large businesses, a growing number of organizations are focusing their efforts on helping SMEs.

Data centers may present the greatest challenges to SMEs today. Power and cooling issues, environmental concerns, and the huge cost that can be associated with building, expanding, or refurbishing facilities have many businesses searching for answers.

With five principals who have led more than $3 billion in data center projects, Reliable Resources specializes in helping businesses in the design of data centers. The company assists its customers in the brick-and-mortar design but also in developing a technology architecture for the facility that ensures the design meets the business' current and future infrastructure requirements.

"We dive into the technology to find out what is driving the need for a new data center," says Tim Dueck, one of the principals with Reliable Resources. "Many times we can save a significant amount of money or time on the work schedule by adopting a little different approach to achieving their main business objective and by moving beyond just addressing the specific triggering event that has led to the project."

Customers generally engage with Reliable Resources as their current facilities reach capacity either in space, power and cooling capability, or network bandwidth. They may also be looking to improve backup and disaster recovery efforts, merge data center operations after an acquisition, or complete a platform change as they migrate to a new system architecture.

All the triggering events have a strong impact on the ability for the small to mid-sized enterprise to maintain critical operations. SMEs look to Reliable Resources to ensure the reliability and longevity of new facilities and help maintain project objectives and schedules, Dueck says. Businesses also seek its help because data center projects generally happen infrequently, and they may have limited on-staff expertise in the area.

"By bringing on an external expert, you can take advantage of their having the pulse of design and construction best practices and emerging industry standards," Dueck notes. "There are a lot of changes going on in the data center world, and more changes on the horizon, but we will work to do everything we can to alleviate any potential problems." P

NETWORK HARDWARE RESALE

Upgrade on Your Schedule, not the manufacturer's.

Pre-owned **Cisco**, **Juniper**, **Extreme** and **Foundry**

Extensive inventory of **current and previous generation** equipment

Sell Your Surplus!
Highest market values paid for used routers, switches and IP telephone products

800.301.0276 805.964.9975
www.networkhardware.com

Regent Sales, Inc.
www.regentsales.com
800-657-9555
Phone: (817) 249-9950
Fax: (817) 249-9069
Email: Sherisa@regentsales.com

BULLSEYE!

15K, 146GB HDD Pluggable	347708-B21	$495.00
15K, 72GB HDD Pluggable	286778-B22	$319.00
15K, 72GB HDD Pluggable	3R-A3851-AA	$325.00
10K, 300GB Pluggable	350964-B22	$575.00
10K, 300GB Pluggable	3R-A4952-AA	$595.00
10K, 146GB Pluggable	286716-B22	$345.00
10K, 146GB Pluggable	3R-3841-AA	$345.00
HP MSL6000 ULTRIUM 460 DRIVE AD605A		$2,900.00
FCA2214 2GB 64BIT 133MHZ PCI-X 281541-B21		$685.00
48 Port 10/100 Switch Enhanced OsWS-C2950G-48-EI		$2,345.00
24 Port 10/100 Switch Enhanced OsWS-C2950G-24-EI		$1,370.00
LTO3 Data Cartridges D2406-LTO3		$71.85
SDLT Media Bar Code Reader SG-XBARCODES-L8		$825.00

Regent Sales, Inc., Your "On Target" Choice For New, Used & Refurb Equipment

IBM Business Partner · authorized reseller hp invent · COMPAQ ProLiant • Alpha • StorageWorks • Tandem · Cisco Systems Reseller

Quality • Integrity • Value

$$ CASH $$ $$ CASH $$

media recovery
Datacenter products and services

WANTED!

Magnetic Tape Media:
9940 • 9840 • 3590 • LTO • SDLT

Please Contact
Al Bass
214-630-9625
abassignani@mediarecovery.com

Visit our new web site at: www.mediarecovery.com

$$ CASH $$ $$ CASH $$

Network Monitoring: What To Look For

Important Criteria For Purchasing The Right Equipment

by Robyn Weisman

• • •

REMEMBER THE OLD DAYS, when networks typically were in one location, used plain old servers and routers, and were homogeneous in nature? In those days, a network monitoring system could take a static approach, where a member of some well-staffed IT department could manually check out each server and switch one at a time.

But nowadays, there is a lot more IT equipment to contend with, the majority of which isn't even located within the data center, says Jamie Lerner, CEO of CITTIO. For example, a retailer such as Pacific Sunwear may have 200 devices within its primary data center, but it has more than 7,000 other devices spread across its nearly 950 stores, including such items as video surveillance monitors, routers, and wireless access points. Meanwhile, an airline manufacturer might have hundreds of pieces of equipment on the shop floor, many of which have their own IP addresses.

And IT departments, particularly at small to midsized enterprises, are more overworked than ever before, so old-school network monitoring tools don't cut it anymore. Given that finding the right network monitoring solution is yet another worry to pile on top of all the other things a data center manager has to remember, such as data security, mobile device management, and email archiving for compliance purposes (and these three were picked out of a hat holding 100 other issues), what criteria should managers keep in mind for choosing the best solution for their businesses?

Concentrate On The Baseline

Traditionally, network monitoring tools tracked the degree of availability within a network and inferred performance by measuring the utilization of server CPUs, memory, and network traffic, says Steve Harriman, vice president of marketing at NetQoS.

However, none of these issues matter if an end user working at a branch office 1,000 miles away from the corporate network is experiencing a 10-second response time when he or she is accustomed to, at most, a two-second one, Harriman says. Moreover, networks are handling many different types of data, all of which have differing characteristics about which traditional monitoring tools simply are clueless.

According to Harriman, the best measure for understanding how to monitor a network is setting baseline metrics in the server infrastructure for "normal" performance. If you have these baselines in place and discover deviations from these metrics, you will have an easier time determining why that eight-second latency has occurred for the aforementioned end user. "It could be because an application was poorly coded or because the application is chatty, with lots of calls to the corporate database before it gets to the end user's screen," Harriman says.

Determining this baseline should not be too challenging, as long as you do not overthink it. For example, voice data has strict requirements that are at the same time easy to measure. "Everyone knows when a call is good or not. If they experience a delay, stuttering, or no dial tone, they are going to hang up," Harriman says.

IT departments, particularly at small to midsized enterprises, are more overworked than ever before, so old-school network monitoring tools don't cut it anymore.

Automate

For her part, Yankee Group analyst Vanessa Alvarez says that automation is a key criterion for choosing a network monitoring solution because it increases its functionality while lowering the IT resources required to keep abreast of what is taking place on the network. Automation capabilities also make the solution easier to manage and to integrate with systems as a whole, says Alvarez.

CITTIO's Lerner says that automation is fundamental in any sophisticated IT environment that has multiple locations, incorporates a range of different devices, and is increasingly heterogeneous in nature. "You don't really see 100% Microsoft or Cisco [setups] anymore, and a static approach makes things that much harder," he says.

In addition, a solution needs to be scalable in its automation capabilities, Alvarez says. "You need to have an idea of how many devices it can monitor. Can it monitor 1,000, 2,000, or more, and how many of them can be auto-discovered?" she asks.

Price

According to Alvarez, the cost of a network monitoring system may be the No. 1 criterion for the SME market. SMEs need to evaluate pricing structures, licensing costs, maintenance fees, and business needs to make sure these costs do not add up and do not saddle the business with costs for functionality it does not need.

In many cases, finding a SaaS solution may be the best way to go, Alvarez says. Alvarez also urges SMEs to choose a third-party solution, even though equipment vendors such as Cisco (www.cisco.com) and Lucent (www.alcatel-lucent.com) provide their own monitoring tools because a third-party solution offers checks and balances that the equipment vendors might lack.

Network Monitoring System Tools

Product	Description	Pricing
CITTIO WatchTower (www.cittio.com)	• 100% Web-based architecture • Industry standard SNMP (V3) agents • Automation stack to minimize manual configurations • Topology, facilities, and geographic mapping	Pricing is per node/device; CITTIO Managed Administration Services are also available on a subscription basis
Fluke Networks NetFlow Tracker (www.flukenetworks.com)	• High availability access to entire network, records within the network, and fields within the records • All data conversations captured with per-minute resolution • NetFlow built in to most Cisco routers and managed switches with plug-and-play capabilities	Sample pricing for a 10-site installation starts at $8,995
GroundWork Open Source GroundWork Monitor Professional (www.groundworkopensource.com)	• Affordable best-of-breed open-source alternative to commercial software that has been selected, integrated, packaged, and supported • Real-time status, events, and historic trend views that proactively alert users about issues and offer complete IT visibility • Complete systems and network management and monitoring using Nagios 2.x best-of-breed open-source tools	$16,000 for annual subscription, which includes two major updates, security patches, telephone and email support, access to support portal, and access to additional plug-ins
NetQoS Performance Center (www.netqos.com)	• End-to-end performance monitoring with NetQoS SuperAgent • VoIP performance monitoring with NetQoS VoIP Monitor • Traffic analysis with NetQoS ReporterAnalyzer • Device performance management with NetQoS NetVoyant	Additional modules are available; a la carte module pricing is also available

CISCO NORTEL
NEW • USED / BUY • SELL
NORTEL AIRMAGNET FORTINET airwave bluesocket Cisco Systems Registered Partner symbol The Enterprise Mobility Company
Special
Nortel BPS 2000 switch
NLE Good as New $395.00
• Trade-ins welcome!
• Authorized service contracts available
• Full Warranty on all products!
• Role-Based networking experts!
• Proactive threat management!
NLE
888-8LANWAN
Call for Free Quote! (888-852-6926)
801-377-0074
Visit Us On the Web At: www.nle.com Fax Equipment List To 801-377-0078

InBus Has Intel Boards & Systems!
InBus Engineering
Has the *World's Largest Inventory*
of Hard-to-Find
Intel Boards and Systems
60,000 Square Foot Facility: Repair -- Testing -- Burn-in
Two Decades of Intel Products and Service
Intel OEM PC Desktops and Servers
Experienced Engineering Staff Provides Expert Technical Support
Same Day Delivery
Warranty On All Products and Services
We Purchase Excess Inventory
Call (925) 454 -2546
InBus ENGINEERING
www.inbus.com
6233 Industrial Way, Livermore, CA 94550, Tel (925) 454-2500 Fax (925) 454-2501

COMPUREX SYSTEMS CORPORATION
Serving the IT Industry for 20 Years
WANT TO BUY
(800) 426-5499
508-238-8250 FAX
www.compurex.com
• HP • COMPAQ • DEC
• OFF-LEASE
• SURPLUS/EXCESS
• END OF LIFE
BUY • SELL • LEASE • RENT • REPAIR

Buy&Sell Cisco
USED ROUTERS, SWITCHES, & NETWORK HARDWARE
Domestic Toll Free
1-888-443-3852
www.dni-llc.com
datanetworks INTERNATIONAL
YOUR NETWORK'S BEST FRIEND, IN THE WORLD™
Tel. 1-973-486-0440 / Fax. 1-973-486-0445 / E-mail: pr@dni-llc.com
90 -100 Route 206, #290 Stanhope, NJ 07874

Going Green In The Data Center

Practical Steps For Your SME To Become More Environmentally Friendly

by John Brandon

• • •

FOR THE PAST FOUR DECADES, the data center has been all about extreme power. Vendors designed servers, storage networks, and the entire computing environment for optimal performance. Today, a highly tuned server can operate extremely fast for application delivery, email, data backups, and just about any other task. However, in the past year or so, as the topics of global warming, ozone deficiencies, renewable resources, and the data center's carbon footprint have made headlines, the concept of extreme power at any expense has come into question.

Instead, many large companies have started a green data center initiative, both in terms of purchasing more efficient servers and in meeting regulatory compliance for recycling existing equipment. Google, IBM (www.ibm.com), Sun Microsystems, Intel (www.intel.com), and many others have announced programs to deal with green computing.

For IT managers in small to midsized enterprises, the concept of a green data center is partly environmental, partly financial. Certainly, there's a cumulative effect when more and more SMEs join the crusade for environmental computing, and that's the ultimate motivation. At the same time, realizing lower operational costs from more efficient systems is another prime incentive. The main question for IT managers is: How can you take steps toward a green data center today? It can seem like an insurmountable goal, but admins can address it with some practical changes, especially in which products they buy.

"Most if not all of the server and storage vendors are focused on being more power- and cooling-efficient," says Mark Peters, an analyst with Enterprise Strategy Group. "Therefore, implementing products that are designed to be more power- and cooling-efficient is certainly a start."

Steps To Take Now

Even before choosing new products and planning purchases for the next few months, admins can take several steps now. According to Sun, turning up the thermostat in the data center just one degree can save 4 to 5% in room energy costs. Raising the set point from 68 to 72 degrees Fahrenheit could save as much as 20% on cooling costs. ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers), an international technical society for data center cooling, recommends setting room temps to 78 F. Sun also recommends checking to see if your cooling tower supports evaporative cooling, which is especially effective in humid areas. Also, plug any and all leaks in the cold air plenum to increase cooling efficiency.

Another critical step involves virtualization, which helps admins consolidate applications onto fewer servers and makes them more efficient. Of course, this kind of consolidation is a longer process but one that begins with an analysis of which servers are being underutilized. Rakesh Kumar, a Gartner vice president, says most servers in use today are only running at 30% efficiency. Sun recommends a simple, immediate step: For any servers that are at 0% utilization—either because no users are accessing those applications or because of an infrastructure problem—admins should just power them down.

Speaking of analysis, another practical step to take toward the green data center is measuring the overall efficiency of power and cooling. Kumar mentions Aperture VISTA and Rackwise for analyzing data center power and cooling efficiency. Used primarily for the aerospace industry, two additional tools can help you analyze airflow in the data center and fine-tune systems for better environmental control. Both Future Facilities and Flowmetrics provide computational fluid dynamics features to help admins determine cooling deficiencies and correct them for measurable cost savings. "These energy management tools will give you a good picture of your servers from an energy point of view and will give you good trend analysis for the future," says Kumar.

Product Choices For Green Computing

Once you know where the inefficiencies exist in the data center, it's time to start evaluating products. Sun recommends eliminating any servers and computers that are more than five or six years old because newer systems are much more efficient. The next phase should be in evaluating servers with an eye toward using more efficient multicore systems, then updating and consolidating storage systems, then installing more efficient UPS and PDU products, and finally updating cooling and heating products, looking at new Clean Heat and Power products that benefit from local generation capacity.

Some product suggestions include the Eaton Powerware BladeUPS, which has a 93 to 95% power efficiency; the Sun Fire T1000 Server, which uses new CoolThreads technology to manage CPU cycles; and SoftLayer, a hosted services company that optimizes server efficiency.

"Evaluate all green technologies for economic benefit first, then ecological," says Mark Monroe, the director of sustainable computing at Sun. "That is, a potential solution must make sense from a total cost of ownership (TCO) standpoint, such as paying a small premium for a product upfront for greatly reduced operating costs in the future. Green products make better use of resources, whether we are talking about chip multithreading (CMT) computers, flywheel UPSes, or advanced cooling systems, so the payoff is in lower operating costs and less waste."

Of course, another option for making your data center greener is in optimizing and virtualizing your systems internally and then hosting less-efficient systems externally. SoftLayer specializes in this process, offering services for, say, customer management through an API that puts the burden for optimization on a hosting vendor. SoftLayer can fine-tune servers and application performance for all the companies that use the hosting.

"A properly sized, high-efficiency power supply on a server can easily save up to 25 to 30 watts in a server," says Sam Fleitman, COO at SoftLayer. "A properly sized or energy-efficient hard drive can save another five to 10 watts. And a low-voltage processor can save anywhere from 20 to 50 watts per processor. Taken independently, these savings might not seem like much. However, someone that is involved in the entire process—such as the data center manager should be—will see savings like that add up quickly in the overall data center environment." P

Green Options

Aperture Vista
Gives admins expert control over power and cooling in the data center
www.aperture.com

Eaton Powerware BladeUPS
Delivers twice the backup power of other modular solutions but dissipates one-third of the heat
www.eaton.com

Flowmetrics
Lets admins monitor and adjust airflow control in the data center
www.flowmetrics.com

Future Facilities
Uses aerospace principles for monitoring airflow control in the data center
www.futurefacilities.com

Rackwise
Monitors power consumption to help admins weed out equipment causing environmental waste
www.rackwise.com

SoftLayer
Hosted service provider that expertly manages servers and operations for eco controls
www.softlayer.com

Sun Fire T1000 Server
Reduces power and space consumption over traditional servers by three times
www.sun.com

EPA Recommendations

The Environmental Protection Agency recently filed a recommendation to the U.S. government on how data centers, specifically servers, can become more efficient and address environmental concerns. It is available online at: www.energystar.gov/ia/partners/prod_development/downloads/EPA_Datacenter_Report_Congress_Final1.pdf.

The main finding of the report is that data centers use about half of the energy in the computing environment, and equipment outside the data center uses the rest. The power usage for the data center is also rising quickly and will require an enormous increase in the number of power plants in a given area if the power consumption continues to grow. "The EPA has just started a process that may eventually end up with an Energy Star rating for computer servers but not the whole data center," says Sun Microsystems' (www.sun.com) Mark Monroe. "That process is just in the initial phase, where EPA has asked for industry comment on the process to be used to develop an Energy Star for Servers specification."

WE BUY TAPE!
DLT-LTO-AIT-AME-DDS-QIC-3480-3590-9840-Etc.
New & Used - All Types of Data Tape Media
Certified DATA DESTRUCTION Assured
World's #1 Tape Buyer is The Data Media Source
Highest values paid - Free pick-up at your site
1-800-252-9268 www.datamediasource.com

ITT Information Technology Trading
Ph: (877) 715-3686
Fx: (405) 715-3682
www.itechtrading.com
We Buy, Sell and Lease IBM
AS/400 • RS/6000 • Servers
System Upgrades
Advanced 36 Systems
Tape Subsystems
Printers, Terminals, Modems
21 Years Experience
We Also Buy All Other Brands of Computer Hardware!

We Buy Used Cell Phones
& pay up to $50 for each phone!
Some phones have no value. See current purchase price list for individual model prices at www.pacebutler.com
www.pacebutler.com
1-800-248-5360 • (405) 755-3131

BUY & SELL
HARD DRIVES
FLOPPY DRIVES • CDROMS • CONTROLLER CARDS
New/Used/Pulls • Notebook/Desktop/Servers
All interfaces and capacities
www.drivesolutions.com
818-718-6900 Ph, 818-718-6100 Fax
email: sales@drivesolutions.com or purchasing@drivesolutions.com

ISM International Systems Management Inc.
800.421.6572
Ph: 770.840.8994 • Fax 770.840.9228
www.ismweb.com • info@ismweb.com
IBM iSeries • IBM pSeries • Sun • HP9000 • Cisco
We Buy, Sell, Lease and Provide Short and Long Term Rentals
90 Day Warranty on All Refurbished Systems, Memory, Disk & Parts
Call Us To Save Up To 90% On Used Certified Equipment!
CALL ISM FOR ALL YOUR MIDRANGE COMPUTER NEEDS!

Having a hard time finding the computer equipment you need?
Let Processor.com get you connected.
We can put you in touch with hundreds of computer equipment manufacturers, dealers, and resellers throughout the world.
PROCESSOR.COM

WHAT'S HAPPENING

Cool Solutions For Hot Data Centers

Atlas Sales & Rentals Has Portable Air Conditioners For Every Environment

by Julie Sartain

• • •

ONE DESKTOP COMPUTER can generate 65 to 250 watts of heat/electricity (that is, the integrated circuits such as CPUs, chipsets, and graphics cards, plus hard drives). Add another 80 watts for a 17-inch CRT monitor or 35 watts for an LCD monitor, plus a cable modem (7 watts), a router (4.5 watts), a phone box like Vonage provides (2 watts) and so forth and, suddenly, your small computer office is roasting at 345 watts or so.

Now multiply that by the number of servers in your data center (for example, a full server rack generates about 50,000 BTUs of heat), and you have a serious problem. Heat is the No. 1 killer of computers, but keeping a data center cool 24/7 is a big job and an even bigger expense.

The Cool Solution

Atlas Sales & Rentals (www.atlassales.com), headquartered in the San Francisco Bay Area, has cooling solutions for data centers. A pioneer of the portable air-conditioning market, Atlas Sales & Rentals was founded in 1979 for the purpose of selling Movincool portable air conditioners. "We are still the industry leader today," says Clark Michel, vice president at Atlas. "We're specialists—all our cooling products are portable, they are the highest quality, and they're available for purchase and rental."

Many IT managers don't know that cooling equipment is available for rent, notes Michel. The Atlas units can be used for primary, supplemental, or emergency cooling and can solve virtually any heat-related problem that arises in the data center.

"We provided rental cooling equipment for a Fortune 500 company in Los Angeles while they performed periodic maintenance on their primary cooling system," says Michel, "which took several hours. The data center took up the entire floor of the building. They estimated that if they had to shut down the data center, the cost of the downtime would have been over $1 million."

R&D

The Atlas product line was originally developed for cooling factory workers, continues Michel, but the primary applications have evolved to data centers, offices, and temporary situations rather than assembly lines. Atlas developed the Office Pro series specifically for today's applications, as a response to the changing needs of clients and their growing facilities.

"Our product development is a lengthy process," says Michel. "When questions arise about which particular features or specifications would benefit the market, we turn to our clients. There is no substitute for their knowledge of what works best in the field or what might be needed the most. In the long run, we like to provide every possible variation of our equipment, but we have to start somewhere."

One new product is the ceiling-mounted CM12, which installs in the attic space above a data center rather than taking up valuable floor space. Another new model is a 7.5-ton portable cooling unit. It's the largest portable air conditioner ever designed for data centers. It eliminates the need for multiple units (in some cases), and the multiple electrical hookups that they require, says Michel.

Other Products

Other products include the air-cooled portable air conditioners, which are the most popular systems for end users and industry professionals looking for effective spot-cooling systems, notes Michel. Portable air-cooled air-conditioning units can

Atlas Sales & Rentals, Inc.
THE PORTABLE COOLING & HEATING SPECIALISTS

be installed almost anywhere and usually in just a few minutes.

The watercooled portable systems connect to an external water source and are used primarily in facilities with central cooling towers, Michel says. Customers can also use them with a portable dry cooler to enhance an existing portable air-conditioning system, and the systems don't require exhaust ducts.

The mobile cooling systems (for cooling really large data centers) are more affordable than installing industrial air conditioners. These systems are designed to endure the rigorous demands of high-powered use and/or be used in tandem with existing equipment to provide higher cooling capacities, yet they're still portable. You can set them up outside your building with flexible air ducts or crane them to your roof and connect them to the existing ductwork.

"And for emergencies," says Michel, "our mini portable air conditioners are available for light commercial use and cooling smaller areas. They're easy to set up and only require a 4-inch opening to exhaust the warm air. And some models include a wireless remote control."

"We have a broad product line now," Michel says, "which has a model for almost any application. You can expect to see some existing models available in different voltages in the not-too-distant future. This should mean that we will always have equipment, which will run on whatever electric power happens to be available at the time."

Michel says many types of cooling equipment are available for the data center, but none provide the flexibility of the Atlas portable units. If you move, you can take the equipment with you. If you outgrow it, you can exchange it for a larger unit. If you only need it temporarily, you can rent it short- or long-term. No job is too big or too small.

Target Audience & Costs

"Our target audience is the person responsible for the smooth operation of the data center," says Michel. "Excessive heat can cause various problems, and we try to create the awareness that those problems can be solved, even if they are only temporary to begin with. The availability of our rental cooling equipment is a safety net that all IT managers should know about."

Pricing is simple and based on cooling capacity, adds Michel. Purchase prices for Atlas equipment start at about $2,500, and rentals start at about $200 per week.

Michel says Atlas is focused on treating its customers with top-notch service. "We want a long-term relationship with our clients," he notes, "and the only way to make that work is to take good care of them. We make sure we have all the inventory, staffing, support, etc. to solve our clients' problems immediately. There are other companies out there that carry our equipment, but none of them specialize like we do, and none are as committed as we are." P

THREE QUESTIONS

Secure & Energy-Efficient Storage Solutions

Nexsan Technologies Offers A Reliable, Affordable Product Lineup

by H. Court Young

NEXSAN TECHNOLOGIES (www.nexsan.com) offers a broad range of technologically advanced, secure storage solutions. It offers high-capacity disk storage systems for applications, including video security, medical imaging, rich media, compliance, and litigation support, as well as more traditional primary storage and disk-based backup. Around the world, Fortune 500 companies, major universities, and government agencies use Nexsan's storage products.

Energy efficiency is a competitive advantage Nexsan embraces. In a recent study by the U.S. Department of Energy, idle computers account for more than half of the 53 billion kilowatt hours of power that business computers consume annually. The annual cost of this consumption for U.S. corporations totals $3 billion. AutoMAID energy-saving technology is a Nexsan technology that reduces power consumption by placing storage drives into an idle state.

Comprehensive secure storage architecture is another of Nexsan's technologies. File-level encryption, CAS (content addressed storage) including de-duping functions, ILM (information lifecycle management), integrity checking, authentication, multimedia archiving, and backup are all incorporated into its comprehensive secure storage architecture. Nexsan's architecture allows storage of one file accessed by multiple users, defined as single-instance storage, which saves both time and energy.

Organizations needing to comply with regulations such as Sarbanes-Oxley and HIPAA, among others, can use Nexsan's Assureon line of intelligent storage products. Nexsan's RAID systems have high-density storage capacity, while still being reliable and cost-effective. Its SATA storage systems include those sold under the trade names SATABoy and SATABlade, as well as a very high-density disk system named SATABeast.

Businesses today need safe, cost-effective means to archive growing volumes of email yet keep them online and rapidly retrievable. According to recent estimates from IDC, email volume will reach nearly 97 billion emails per day worldwide this year. And a number of federal and state regulations require business-related email to be stored so that it is retrievable. Using Nexsan's Assureon technology, businesses are able to archive all of their email messages while taking advantage of single-instance storage, which frees employees up from cleaning out their inboxes or deciding which messages to keep. This technology moves archived email onto a separate repository, which reduces the time required to back up current, active email.

Processor talked with Phil Cabanday, Nexsan's marketing communications manager, and asked him to address the following questions.

■ What are the biggest IT-related issues facing today's small to midsized enterprise?

Cabanday: Each new device that is added to the network cloud adds up to higher power consumption. With no end in sight for the demand of processor-intensive and hence energy-hungry technology, energy costs are increasingly cutting into the enterprise's bottom line. Energy efficiency and the use of green technology is no longer a moral virtue but a competitive advantage.

■ What should *Processor* readers know about your company's products?

Cabanday: Nexsan is leading the way in addressing the twin concerns of security and energy efficiency in the storage industry. Our Assureon product line offers intelligent, disk-based archiving solutions that provide powerful, cost-effective choices for the protection, retention, and long-term care of information assets. Nexsan's SATA product line of high-capacity disk storage arrays features our AutoMAID energy-saving technology. AutoMAID transparently places our system's disk drives into an idle state, vastly reducing power consumption and operational costs.

■ What makes your company unique?

Cabanday: Nexsan offers the most complete line of secure and energy-efficient storage solutions. Whether your application is fixed content storage and archiving, compliance and litigation support, digital video security, medical imaging, email, or rich media, Nexsan has you covered.

RapidNet

PRE-TERMINATED,

PRE-TESTED,

PRE-ANYONE ELSE.

PROVEN IN THE FIELD

PROVEN PERFORMANCE. PROVEN RELIABILITY. RAPIDNET. When it comes to pre-terminated network cabling solutions, HellermannTyton is the leader. Pioneering the first Category 6 pre-terminated network cabling system, HellermannTyton has, for years, delivered successful RapidNet installations across the globe – including leading US data centers in government, financial, healthcare, educational and enterprise applications. RapidNet is available in copper and fiber modular configurations and offers the time tested performance and reliability required for system critical applications. Assuring on-time project completion in the most demanding circumstances, **RapidNet has been verified to reduce installation time by 85% over traditional methods.** RapidNet has been proven in the field, now let us prove to you how RapidNet can enhance your business. Go online for more information and register for your free "Proven in the Field" t-shirt, www.hellermann.tyton.com/pro

phone: [800] 822 4352
email: info@htamericas.com
www.hellermann.tyton.com/pro

HellermannTyton